

AMIGA

'93

ote!

Reader's Choice Awards Ballot p.73

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Volume 8 No. 6 June 1993
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Spring Arrivals

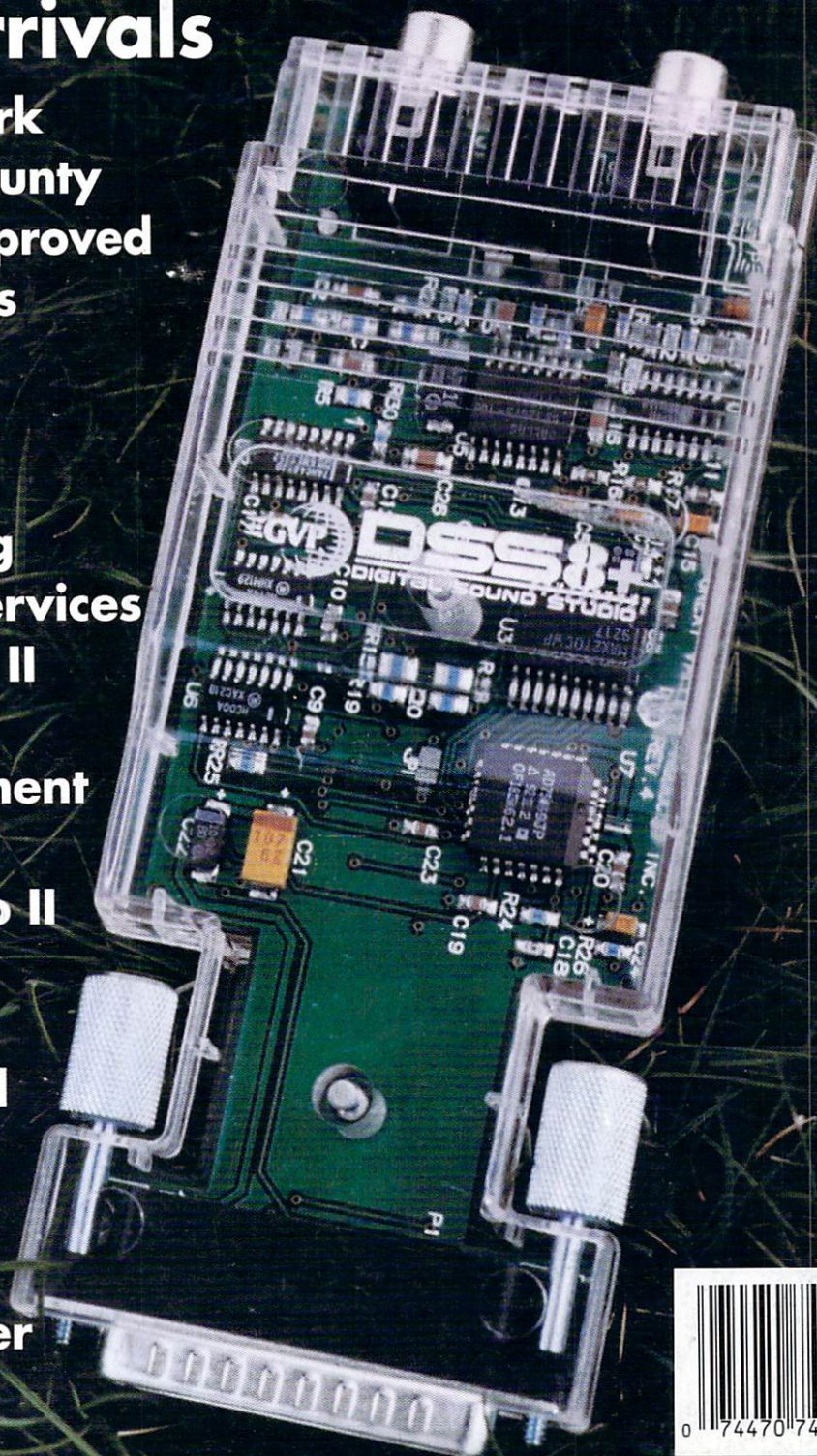
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of New and Improved
AMIGA Products

In this issue:

- Structured Drawing
- On-Line Medical Services
- Design & Dingbats II
- Numbers Game
- Low-cost Development Systems
- Doin' It with CanDo II

Reviews:

- AMOS Professional
- AdRAM 540
- Toaster Cozzy
- C.L.A.S.S.
- Presentation Master



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Karate game	✗	✓

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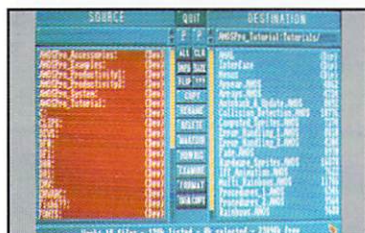


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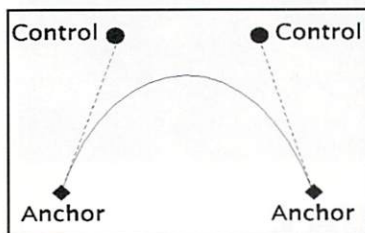
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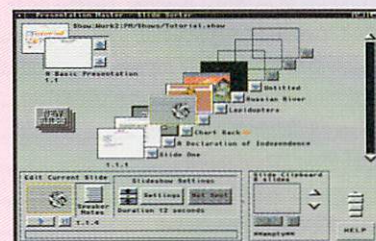
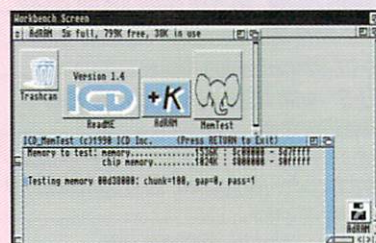
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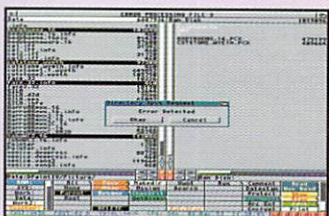
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And Furthermore...

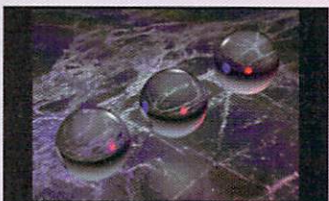
Meet the latest stars in the New York area and the man behind them in our coverage of Stanley Puck® and friends on p. 96.



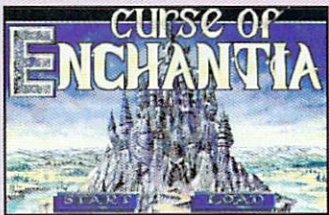
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Circle 106 on Reader Service card.

EDITORIAL CONTENT

Once in a while, we receive letters from readers who are unhappy with AC. It is bound to happen; if you are going to establish criteria and policy, you are bound to find people who have different ideas.

This is great. It is exactly why we established this publication. If all we ever hear are our own ideas handed back to us, then where will we go to learn new things?

There have been many occasions when someone has convinced me that their idea had merit, but even if I did not agree with them, I would still want to know what they thought. How can anyone hope to change another's opinion, if they don't first stop and understand what the other person believes.

Plastic—No Renewal

Recently, I received a note that had been scrawled on the bottom of a renewal slip. The note said, "I do not want to renew my subscription because you mail your magazines in plastic."

One choice we made with the very first issue of AC was that every subscriber copy would be protected through the mails. Being a consumer for so many years, I was always upset to find my magazines mangled through the mail slot. It was disheartening to see an issue's cover partially torn away. I felt as if I had not received all that I had purchased. When we were planning AC, one of the major criteria was to make the reader happy and this was just a small way of attaining that end.

While AC's *GUIDE* and AC's *TECH* use separate envelopes, the size and complexity of mailing *Amazing Computing* requires that we use a plastic bag to protect each issue. The decision was not made without a lot of thought.

Laminate Or Not

Many magazines laminate their covers. The extra laminated or coated material offers a secondary protection for the magazines through the mail. This is also great for a good look on the newsstand. However, the shiny coating is extremely hard to separate from the paper during recycling. Most scrap merchants charge to haul away this type of material. What eventually happens is the material ends up in a landfill.

The covers of AC are varnished. This bio-degradable substance is not only

completely recyclable, but requires very little in non-renewable resources. The covers may be a little less glistening, but the message still comes through.

So Why Plastic?

As I stated above, plastic is the easiest material to use in line when our printer is performing the mailing. It is easy to work with and extremely versatile. The mailing label is attached to the plastic wrapping and not to the cover. This means your copies are not defaced by the time they reach your door.

"I do not want to renew my subscription because you mail your magazines in plastic."

However, plastic has its problems. If not adequately handled, plastic can foul our land and water. One of the worst things I have seen is fish or seals who have become entangled in plastic that has been discarded in the sea. If a young seal gets its head caught in a cover rings for a six pack of beer or soda, the poor animal cannot get loose. Eventually the animal's neck grows around the plastic and it becomes embedded in the skin. If the plastic does not break, it will eventually kill the animal.

Plastic is also a petroleum product. This means it is not (as of yet) a renewable commodity. The energy and materials required to produce the plastic are lost to us if we do not try to recover them.

Plastic does have a good side however. Plastic is, for the most part, recyclable. Plastic can be reborn into products from insulation to car bumpers. It only requires a little thought and a little work.

A Reply

With all of these thoughts behind me, I began to write a letter to our subscriber. I completed the letter but left it in my basket for a few days while I considered other aspects. When I can, I like to let an idea sit around for a few days in case I come up with a better example or find a fault in my thinking. To some, this may seem like procrastination, and I must admit, I suffer

from that disease also. But, I felt the best thing to do would be to wait to see if anything else would occur to me.

A few days later the phone rang at the office. I was the only one in the office, so I answered it. The gentleman wanted to get a Fred Fish disk. When I asked for his name, it seemed familiar. By the time he had given me his address, I was sure it was the subscriber who had written the letter.

When I asked him if he had written us a letter, he said no. This was true, he had only placed a note on the bottom of his renewal form. When I asked him if he had

had a question concerning our use of plastic, he said yes and was genuinely surprised that I would remember him.

I then explained why plastic had been chosen and why we felt it was the best substance for everyone. Our subscriber not only ordered his Fred Fish Disk, but he renewed his AC subscription as well.


Everyone Is Important

I have told this story not to impress you with our thought process in working with our customers, but with a hope that our readers will understand how important it is to communicate.

If the subscriber had not bothered to tell us his concern, I might never have had the opportunity to show him how concerned we really are with the environment. If you have a problem, concern, or suggestion, please let us know.

One of my old bosses liked to say, "Their is no stupid question except the one that is unasked." I believe we all have a lot to offer the Amiga community and our environment. It only means we must communicate our concerns as well as our ideas.

Sincerely,



Don Hicks
Managing Editor

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Carsmear by Mike Vunck

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Aladdin 4D Version 2.1

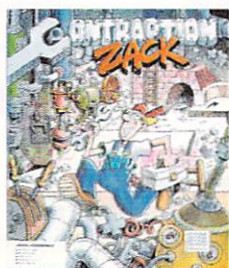
Adspec Programming is announcing the latest upgrade to its Aladdin 4D product: Version 2.1. Version 2.1 (\$499) was released as a free upgrade to all registered users. All new packages are now being sent out with version 2.1 in them. In addition to correcting some bugs in the initial release, Aladdin 4D version 2.1 includes some new features. Version 2.1 now includes support for the AGA machines and will now read in the encapsulated postscript files from Soft Logik's Art Expression program. Also, a new line types attribute has been added to the polygons. *Adspec Programming*, 467 Arch St., P.O. Box 13, Salam, OH 44460, (216) 337-1329. *Inquiry #201*

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Micro R. & D. is pleased to announce a new addition to their line of Amiga Power Supplies. The Bigfoot 2000 (\$189) is an internal replacement power supply for the Amiga 2000. It provides 300-Watts of fan-cooled power for the Amiga 2000 user and makes a great replacement for anyone wanting more power for 040 boards, extra RAM, etc. *Micro R. & D.*, 721 O St., PO Box 130, Loup City, NE 68853, (800) 527-8797. *Inquiry #202*

Contraption Zack

Things are a little out of hand at Gadgetco, Inc. On Zack's first day as repairman, he finds himself up against six levels and over 60 rooms of incredibly intricate, interrelated, and fiendishly finicky gizmos! There are major system malfunctions everywhere, the employee manual reads like the rambling of a mad scientist, and Zack's tools have been borrowed and lost somewhere within the machine. Zack needs all the help he can get in this fully animated, 3-D puzzle-action game (\$39.95). You will be challenged with increasingly sophisticated puzzles: time-based, logic-based, music-based, puzzles within puzzles, and multi-roomed puzzles. *Mindscape*, 60 Leveroni Court, Novato, CA 94949, (415) 883-3000. *Inquiry #203*



FractalPro 6.0

FractalPro is the only professional-quality tool for creating beautiful fractal art and animations on the Amiga. Version 6.0 (\$199.95) takes FractalPro a giant leap forward into the future of Amiga's AGA systems. FractalPro 6.0 builds on the existing capabilities of stunning HAM6 and 24-bit rendering, 12 types of automatic animation sequencing, ARexx and JAHscript control, and optimized assembly language algorithms for blazing speed, VistaPro DEM output, and post-render script execution capabilities of earlier versions. FractalPro 6.0 retains compatibility for loading images and coordinate files from FractalPro 4.0, 5.0, and 5.1. *MegageM*, 1903 Adria, Santa Maria, CA 93454, (805) 349-1104. *Inquiry #204*

Koshan Conspiracy

In the 22nd Century, a rare and precious alloy, Echiatone 21, is used to manufacture high-end electronics and advanced weapons. The unscrupulous Koshan have managed to secure almost total control over the availability of this material and are using their position to gain more power and influence. The Bureau of Astral Troubleshooters, of which you are an agent, has been hired to release the stronghold the Koshans have over the Echiatone 21 supply. One agent has already failed, will you be able to stop them in time? *UBI Soft, Inc.*, 1505 Bridgeway, Suite 105, Sausalito, CA 94965, (414) 332-8749. *Inquiry #205*

MediaLink 3.0

If you want to create, combine, and synchronize graphics, text, and animations with audio and video, you'll need MediaLink 3.0. MediaLink ably combines ease of use with power in a way that grows with you. Start out in the 'Test Drive' mode, where you are presented by only those menu items and commands you understand. Progress up through 'Presenter' and 'MultiMedia' and finally, in 'Expert' mode, have a full quiver of multimedia tools at your fingertips. Tools such as the built-in Page Layout system that supports all

popular Amiga screen modes including AGA modes. Pull image data in from disk, or just grab the display screen of any currently multitasking paint or image-capture software and its image is automatically scaled and re-mapped into your page layout. Text handling includes full 2.0 scalable font support, and lets you have multiple fonts, colors, styles, and sizes per line. *Computer Video Solutions Inc.*, 14-B S. 7th Street, Akron, PA 17501, (717) 859-2049. *Inquiry #206*

Merlin 24-bit Graphic Board

The newest graphics board from X-Pert in Germany will feature a resolution of 1280 x 1024 non interlaced, composite, Y/C and 15-pin Sub-D output, up to 4MB of VideoRAM, and will use a Zorro II or Zorro III slot. The board will come bundled with a realtime Workbench emulator and TV-Paint Junior, a 24-bit drawing package. Also available for the Merlin Graphic board will be two extension modules, which plug on the board. The first module is a 24-bit video digitizer, the second module will be a genlock module. *Spectronics International U.S.A., Inc.*, 34 East Main Street #3, Champaign, IL 61820, (217) 352-0061. *Inquiry #207*

Polyhedra Version 1.2

Polyhedra 1.2 (\$29.95) now supports multiple 3-D modelling programs. It brings the same fantastic objects from the original Polyhedra to programs such as Imagine, Lightwave, Draw4D, Caligari, and Sculpt. For artists with several 3-D design packages, Polyhedra Version 1.2 makes it easier than ever to use these unique objects. Registered owners of the original Polyhedra can upgrade for only \$7 post-paid. *Technical Tools*, 2 S 461 Cherice Drive, Warrenville, IL 60555. *Inquiry #208*

SignEngine

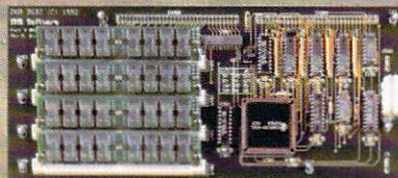
A new professional-level sign-making program designed specifically for use on the Commodore Amiga was announced today by Parallel Motion Graphics. Called SignEngine™, the software fea

Complete your Amiga with the latest hardware from DKB

DKB 2632™

112 Megabytes of RAM for the Amiga A2500 and the A2630

- Now you can go beyond 4 Megabytes of 32 Bit memory.
- Expandable up to 112 Megabytes of 32 Bit memory.
- State-of-the-Art design breaks the 32 Megabyte limit and allows the use of different size memory modules in the same bank.
- Using 32 Bit wide SIMM modules enables you to install only one module to add up to 32 Megabytes at a time, modules are available in 1, 2, 4, 8, 16, and 32 Megabytes.
- Installs onto the CBM A2630 Accelerator card and the IVS Vector 030-25
- Does not use autoconfig space, uses 32 Bit address space so that you can still use your AT Bridgeboard with more than 6 Megs of Fast RAM.
- Excellent for Desktop Video, Desktop Publishing and Multimedia applications.
- Fully compatible with Workbench™ 1.2, 1.3, and 2.0.
- Compatible with the MegAChip 2000/500™ and MultiStart II™ ROM board.
- Compatible with the Vector 030-25 accelerator from IVS.
- Compatible with the Video Toaster system, Amiga A2500, A2000HDA/100.
- Compatible with the CSA Rocket Launcher™ 50MHz upgrade for the A2630 accelerator card.



MegAChip 2000/500™

2 Megabytes of Chip RAM for the Amiga A2000, A500, CDTV & Video Toaster

"The MegAChip 2000/500 should be standard equipment on every Video Toaster System."

Jim Plant - Publisher/Editor Video Toaster User

"The MegAChip 2000/500 is a must own for anyone that wants to use Toaster Paint™ or Multitask with the Video Toaster."

Lee Stranahan - Writer of the Video Toaster 2.0

manual Tutorials also featured in the Desktop Images Video Toaster Tutorial tapes.

"I would advise Toaster users who make use of Toaster Paint or LightWave™ to add DKB's MegAChip 2000/500 to your system as soon as possible."

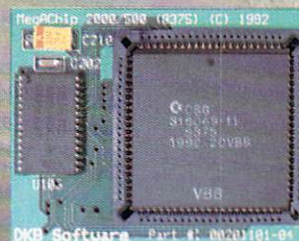
Tim Doherty - Video Toaster User

The MegAChip 2000/500 allows you to upgrade your Video Toaster, Amiga A2000, A500, and CDTV™ to 2 Megabytes of Graphics Memory.

The MegAChip 2000/500 is a needed addition to your system if you are working with Desktop Video, 3D Rendering & Animation, 24-Bit Paint, Multimedia or Desktop Publishing. Scala MultiMedia 200 requires 2MB of Chip RAM which means an A500 or A2000 needs a MegAChip 2000/500 installed to use this software

Fully compatible with the Video Toaster™, OpalVision™, VLab™, IV-24™, DCTV™, Ham-E™, and most genlocks and framebuffers.

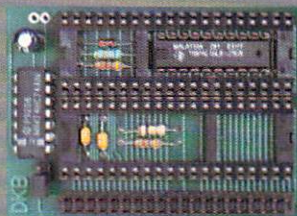
Fully compatible with most 68030 and 68040 accelerator cards.



MultiStart II™

For the A500, A600 & A2000

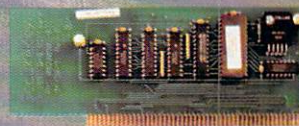
Allows A500 A600 and A2000 owners to install Kickstart V2.0 and V1.3 ROMs and switch between them with the keyboard. No software required for operation. Lets you stay compatible with your software. No external wires or switches required. This MultiStart is compatible with the MegAChip 2000/500, VXL030, and CSA MMR accelerators for the A500 and also most other products that install inside the A500. This is the ROM switcher that Commodore Amiga Technical Support sells to developers.



SecureKey™

Access Control System For The A2000 & A3000

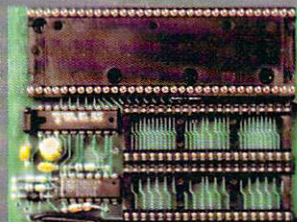
The SecureKey is a hardware security device that installs in any A2000 or A3000 or Video Toaster system. The SecureKey allows you to have one access code for your Amiga. The SecureKey will not allow access to your Amiga without the right security code, period. You can't boot off of a floppy or bypass it in any manner. If you need to keep your system safe from unauthorized use - Want to make sure that no one can delete files from your harddrive or steal your work then you need the SecureKey. This means that if your system has files such as animations, documents, presentations, C code, or any type of confidential information, you can be assured that the files on your harddrive are safe. Keep your Amiga safe from those that may otherwise unknowingly destroy your information. Requires Kickstart V1.3 or above. The SecureKey is fully compatible with Kickstart V2.0.



KwikStart II™

Use Kicksart 2.0 in your Amiga A1000

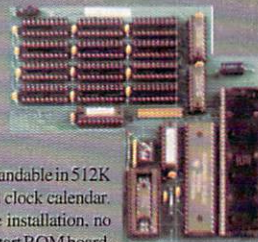
Allows A1000 owners to install V1.3 and V2.0 Kickstart™ ROMs and switch between them. Upgrade to the latest operating system and still be compatible with software that requires Kickstart V1.3. Use the latest V2.0 operating system without using up your system memory. Fully compatible with Kickstart V2.0 and Workbench V2.0. Uses standard Commodore ROMs for easy upgrades. Allows you to boot faster because you only need to load Workbench. Works with Kickstart V2.0, V1.3, and V1.2. Compatible with the Insider memory expansion boards. Also compatible with most processor accelerators. Keyboard switchable between two ROMs or between one ROM and disk based Kickstart. No external wires or switches required



Insider II™

1.5 Meg in the A1000

From the maker of the first internal RAM board for the Amiga 1000: the original Insider™ by DKB Software. Allows A1000 owners to add up to 1.5 Megs of Fast RAM internally. Userexpandable in 512K increments using 256K x 4 DRAMs. Includes battery-backed clock/calendar. Comes with software for the clock and testing RAM. Simple installation, no soldering required. The Insider II is compatible with the KwikStart ROM board. Also compatible with most processor accelerators.



DKB Software

50240 W. Pontiac Tr.
Wixom, MI 48393

Sales (313) 960-8751
FAX (313) 960-8752
Technical Support (313) 960-8750

Contact your local dealer or call for information.

MegAChip 2000/500 is a trademark of DKB Software. Video Toaster is a trademark of Newtek, Inc. CDTV, A500, and A2000 are trademarks of Commodore-Amiga, Inc. IV-24 is a trademark of Great Valley Products, Inc. DCTV is a trademark of Digital Creations. Ham-E is a trademark of Black Belt Systems. OpalVision is a trademark of Centaur Development.

All Products come with a Full One-Year Warranty. Dealer inquiries welcome.

NEW PRODUCTS

and other neat stuff

tures full background cutting, auto separation of imported color artwork into vinyl layers, outline/inline, arcweld, shadowmaker, and interactive auto-tiling. SignEngine is compatible with the leading structured drawing programs available on the Amiga as well as the majority of sign cutting plotters sold today.

SignEngine (\$559.95) imports and exports Professional Draw clips, Pro Vector IFF-DR2D, Art Expression IFF-DR2D, and Expert Draw clip files directly. The program also includes an HP-GLDM/PL plot file interpreter that imports compatible plot files from other applications and platforms and converts them to bezier drawings for output or use in their software. *Parallel Motion Graphics, 10 Stewart Court, Ste. 78, Orangeville, Ontario, Canada L9W 3Z9, (519) 942-8822. Inquiry #209*

SMPTE Output™

SunRize Industries adds to its professional line of audio products for the Amiga with SMPTE Output. SMPTE Output is a stand-alone software product that is used to stripe LTC time code onto audio and video tape. This unique new software product generates and sends the SMPTE time code out of the Amiga's audio jack. The list price for SMPTE Output is \$249. Both NTSC and PAL compatible, SMPTE Output works with any Amiga (models A500 and up) containing at least 1MB of RAM. Features include: 24, 25, 29.97, and 30 frames per second time code generation; drop frame and non-drop frame time code; multiple reset points; fast forward, rewind, play, and pause buttons. *SunRize Industries, 2959 S. Winchester Blvd., Suite 204, Campbell, CA 95008, (408)*

374-4962. Inquiry #210

United States

The Associated Image Group, Inc. introduces United States (\$29.95), Lightwave objects for the Video Toaster user. This diskette is full of U.S. map objects and individual state objects. There are five full U.S. maps configured in various ways. Every state on this diskette has both flat and extruded versions. Each state also has its own face and side surfaces for maximum flexibility. Also included in this special offer is a world.pic which you can use to wrap around a sphere to create your own earth! *The Associated Image Group, Inc., 14900 Landmark Blvd., Suite 600, Dallas, TX 75240, (214) 788-2909. Inquiry #211*

War in the Gulf

War in the Gulf pits a crack unit of M1 tanks against invading Iraqi forces in northern Kuwait. It is a game of immense tension and hectic action set against a backdrop of hundreds of burning oil wells in the oilfields near the Kuwait border. The format for War in the Gulf gives the player simultaneous control of four groups of four armed vehicles, most notably the M1A1 tank. Team Kuwait's first missions will be to completely retake the islands of Failaka Bubiyan, just off the Kuwait shoreline. If the player is able to succeed at the furious level of action required in meeting these objectives, then it is only a short drive over the Khawras-Subiyah waterway to meet landfall and the rump of the Republican Guard on shore. The two major Kuwait oilfields need to be retaken, and the Iraqis pushed back over the border. It will take over 15 separate tank battles in the four hundred square miles of oilfield to achieve success. *ReadySoft Inc., 30 Wertheim Court Suite #2, Richmond Hill, Ontario, Canada L4B 1B9, (416) 731-4175. Inquiry #212*



Wordworth v2—AGA

Wordworth v2 AGA is the first and only Amiga word processor to provide full support for all of the new screens modes and resolutions in the new Commodore AGA Amiga. Registered Wordworth users should telephone, fax, or write to Digita for the upgrade. There is a nominal charge of £10 to cover the cost of upgrade disks, packing, postage, and VAT. *Digita International Ltd., Black Horse House, Exmouth Sevon, EX8 1JL England, (011) 44-395-270273. Inquiry #213*

•Other Neat Stuff•

The Animation Classics Pack

ReadySoft Inc., announces the value pack of the year from Don Bluth Multimedia and ReadySoft. With a suggested list price of \$69.95, this collection of titles—Dragon's Lair II: Time Warp, Wrath of the Demon, and Space Ace—will prove to be an excellent selection for all animation gamers. *ReadySoft Inc., 30 Wertheim Court Suite #2, Richmond Hill, Ontario, Canada L4B 1B9, (416) 731-4175. Inquiry #214*

Clik-Clak Changes Name

Clik-Clak, the gear game, will now be known as Gear Works. *Hollyware Entertainment, 13464 Washington Blvd., Marina del Rey, CA 90291, (310) 822-9200. Inquiry #215*

Commodore Announces New Lower-Cost Amiga 4000

CBM announced it is expanding its Advanced Graphics Architecture™ (AGA) product line with the addition of the new Amiga 4000-030 desktop computer. The Amiga 4000-030 is a lower-cost version (\$2399) of the company's Amiga 4000-040 that was introduced in September 1992. *Commodore Business Machines Inc., 1200 Wilson Drive, PA 19380, (215) 431-9100. Inquiry #216*

Cyclemuscles

For use with Imagine, these two objects are caricatural representations of bodybuilders. They come with a walking cycle and running cycle for use in animations. Both objects are very detailed, and come with all necessary attributes. These objects can be freely used in any project. *Spectronics International U.S.A., Inc., 34 East Main Street #3, Champaign, IL 61820, (217) 352-0061. Inquiry #217*

Eagle Shuttle Board & Shuttle Casing

The Eagle shuttle board connects to the expansion port of an Amiga 500 or 500+, giving the user all the expansion possibilities found in an Amiga 2000, including the Video slot, P.C. slots, and a processor slot. The Shuttle board is also available premounted in a black MIDI tower casing, featuring a 220W power supply, and a separate keyboard casing for the Amiga 500 or 500+ keyboard. This casing has the advantage of offering the user all the benefits of the Shuttle board plus an additional four drive bays for the mounting of Syquests, hard drives, floppy drives, etc. *Spectronics International U.S.A., Inc., 34 East Main Street #3, Champaign, IL 61820, (217) 352-0061. Inquiry #218*

GVP Announces IV24 Version 2.0

Great Valley Products announced the release of Version 2.0 of its IV24 multifunctional video board. A separate IV24 upgrade kit for existing users, which had a list price of \$149, was being shipped at the end of March. This major upgrade consists of a ROM, several enhanced software packages, and new manuals. The version 3.10 ROM allows for A4000 compatibility and also allows the new software to run on existing IV24 boards. *Great Valley Products, Inc., 600 Clark Ave., King of Prussia, PA 19406, (215) 3378770. Inquiry #219*

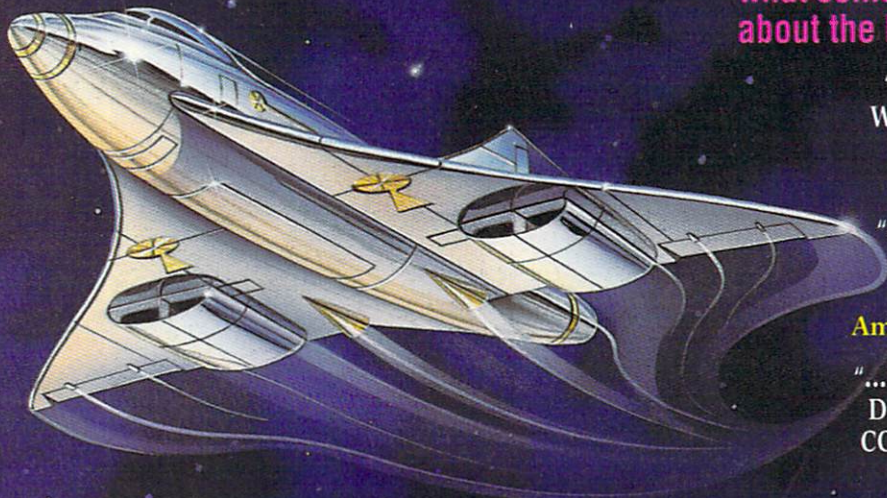
GVP to Release SCSI/RAM Card

GVP announced that it will release a multifunctional SCSI/RAM/FPU board for Commodore's new



FAST AND POWERFUL PRODUCTS FOR AREXX

Compile your ARExx programs with the REXX PLUS COMPILER and they will execute up to 18 times faster. The Intuition Interface allows even the most novice user to execute their programs at warp speed. Explicit error messages make debugging a breeze. The REXX PLUS COMPILER generates a listing that is easier to read than the original source. The listing contains nesting levels, flagged comments, a symbol table and a complete cross reference. Version 1.3 is a major upgrade that generates 40 to 60% smaller programs. All REXX RAINBOW LIBRARY SERIES functions can be included as part of the language.



Don't just take our word for it, here is what some of the experts have to say about the REXX PLUS COMPILER...

"...A SIGNIFICANT NEW PRODUCT WHICH ALL AREXX PROGRAMMERS SHOULD HAVE."

Amazing Computing, June 1992

"...THE AUTHORS HAVE IT RIGHT... IT COULD WELL BE A FUTURE AMIGA CLASSIC."

Amiga Computing UK, November 1992

"...IS A WELL-DESIGNED UTILITY THAT DOES ITS UTMOST TO SUPPORT THE COMPLETE AREXX ENVIRONMENT IN A TRANSPARENT FASHION."

Amiga World, September 1992

"...DOES THE JOB AND DOES IT WELL, EVEN ELEGANTLY."

Jump Disk, June 1992

NEW

REXX *Rainbow Library* S E R I E S

The REXX RAINBOW LIBRARY SERIES is a complete product line of support libraries designed specifically for use with ARExx. Each volume in the Series contains functions dedicated to a specific subject. The first volume in the series is the Stem/Array functions. It provides over 100 functions to manipulate single dimension arrays, which simplify ARExx arrays, Compound Symbols, Pointers and Subscripts. The functions include string manipulation, mathematical and scientific calculations and file access. Also included is the AssignArray() function which assigns/retrieves arrays from/to other ARExx programs. With this function you can build your own single or multiple dimension array functions. Tutorials and examples are used throughout the manual. The REXX RAINBOW LIBRARY SERIES requires ARExx and works with or without REXX PLUS.

DEMO DISK AVAILABLE

Dineen Edwards Group

19785 W. 12 Mile Rd., Suite 305
Southfield, MI 48076-2553

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Amiga Dos is a registered trademark of Commodore Business Machine. ARExx is a registered trademark of Wishful Thinking.

NEW PRODUCTS

and other neat stuff

A1200. Called the A1200 SCSI/RAM+, this versatile board features 32-bit RAM expansion capabilities, a high-speed SCSI interface, and a socket for an FPU (68882 math coprocessor), which dramatically improves floating point operations. The A1200 SCSI/RAM+ will be available in two configurations. The "low-cost" A1200 SCSI/RAM+ features GVP's well known high-speed SCSI interface and comes with 0MB of RAM and no FPU, while the "Power Up" version offers the same high-speed SCSI interface, and includes an FPU and 4MB of 32-bit RAM. *Great Valley Products, Inc., 600 Clark Ave., King of Prussia, PA 19406, (215) 3378770. Inquiry #220*

Super_DJC2

The Creative Focus Super_DJC2 printer driver (\$50) is for all Amiga computers and for all Hewlett-Packard DeskJets, including the new 550C. For text output you get 14 powerful extended commands for just about everything: character set, pitch, point, typeface and softfont selection; control over lines per inch, linewidth, textscale and print direction; 8 different text color options; relative and absolute row and column cursor positioning; and tabsize determination. Super_DJC2 works with all Amigas, and is compatible with AmigaDOS releases 1.3 through 3.0. *Creative Focus, Box 580, Chenango Bridge, NY 13745, (607) 648-4082. Inquiry #221*

T3+

Now there is a simple way to upgrade your Amiga 3000 to the power and versatility of a tower system. The T3+'s quick and easy installation system allows you to mount your Amiga 3000 into a tower and *not* void your factory

warranty! The T3+ is a full-size tower case measuring 8.7 x 27.6 x 17.8 inches. Both side panels open for access. Swing open front panel conceals external drive bays. Features include: six external half-height bays, four internal 3.5-inch drive bays, 230-Watt power supply, two cooling fans, three-digit CPU speed LED display, power

light, drive busy light, and more. *Alabama Computers, Inc., 6210 Old Madison Pike, Suite D, Huntsville, AL 35806, (205) 837-9324. Inquiry #222*

New Products and Other Neat Stuff is compiled by Elizabeth Harris.

Correction:

The correct contact address for Vortex World Wide (v8.4, p.61) is as follows:

*Vortex World Wide
3835 Richmond Ave.
Suite 138
Staten Island, NY 10312
phone: (718) 967-1509
fax: (718) 948-0893*

The Wave of the Future The SAS/C® Development System, Version 6

"Installation is a breeze. The documentation is terrific. If you program in C on the Amiga, ... there is no substitute for the SAS/C 6.0 Development System."
AmigaWorld
February 1993



Experts agree that Version 6 of the SAS/C Development System is the most complete C development system for the Amiga®. Many Amiga users have already caught the wave. You can too! If you are currently using another commercial C compiler, call now for details on our special trade-in offer!

For more information and to order, call SAS Institute at 919-677-8000, extension 7001.

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SAS Institute Inc.
SAS Campus Drive
Cary, NC 27513

Circle 128 on Reader Service card.

REVIEWS

Presentation Master Version 1.1

by Merrill Callaway

What Flavor of Presentation?

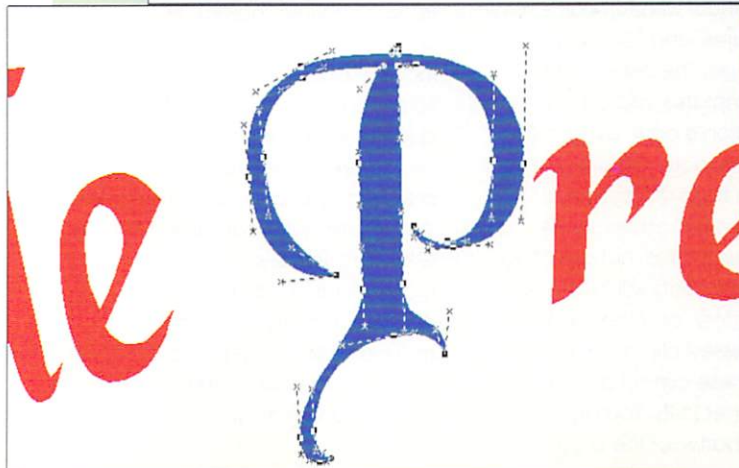
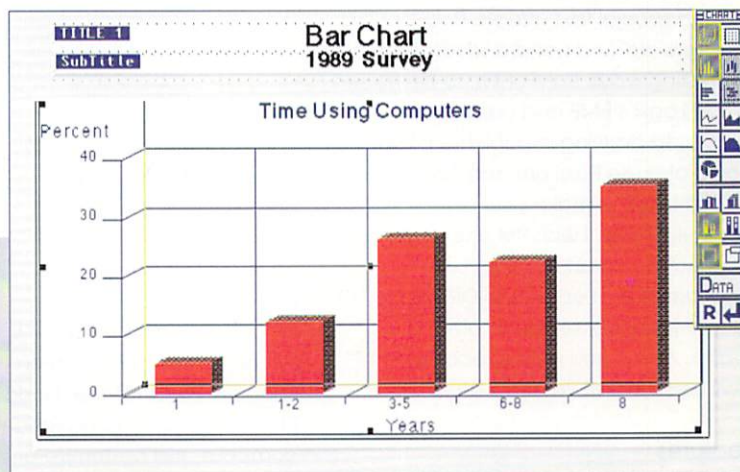
Choosing software to make presentations can be confusing since there is such a variety of Amiga authoring programs, each of which has a slightly different flavor. *Presentation Master* (PM), by Oxxi, satisfies a traditional concept of what a business presentation ought to be. Most of us think of a business presentation as a slide show, either through a 35mm projector, or with overhead slides, perhaps accompanied by graphs and charts, key ideas lettered on a board, and sometimes with typed notes handed out to the participants so they can follow the agenda more easily. *Presentation Master* is software for authoring professional business slide presentations with a minimum of fuss. In PM, the slide is the basic unit. You build up each slide from "layers" containing "objects" such as text or graphics. Several objects may be "grouped" or "ungrouped" and "combined" or "burst" to let us manipulate them easily. Slides may have associated printed notes, and be given hierarchies of "parent" and "child" to allow branching. Full color (24-bit) PostScript output is supported, as is CMYK and RGB separations, as well as dot matrix or other preferences printer output. Output includes the ability to reduce slides to "storyboards" with 2, 6, 12, 24, or 40 miniature slides per page.

Other Creative Uses

In addition to the traditional tools of slides and charts and hand-out notes,

PM allows you to run your presentation entirely on the computer. In computer mode, the slides and also animations may be shown automatically or interactively. For example, you may prepare more detail than you show. Then, if someone wants to see "more detail about the Western Sales Region," you may present a detailed branch, and return easily to the main stream of the show. Sampled sound is not supported, but there is a narrator module to read notes from slides using the Amiga's

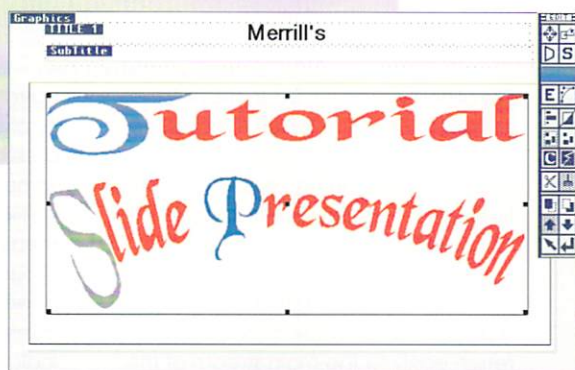
narrator device, but I doubt the desirability of using Amiga speech in a serious presentation! Although PM overlaps some features of so-called multimedia packages, and will inevitably be measured against other multimedia programs, it's not quite there in the play/control department. For true multimedia, controlling laser disks, music, complex logic through ARExx, and so on, *Scala MM* is superior. PM can "play" its own less complex presentations on the computer, but where it really excels is as a Slide



Above, a chart with the Chart Toolbox. Left, a close up of a PolyFont with Bezier Curves.



Left, the data sheet for a chart. Below, editing a PolyFont object. Below, right, the slide sorter screen.



Authoring System. Because of its powerful structured graphics features—missing in *Scala MM*—Presentation Master is wonderful to create images to be played by *Scala MM*, if you need a more complex “player” for your presentation. The two programs complement each other. In particular, PM’s PolyFont feature is superb for making special text effects. PolyFont is a way to warp and bend and rotate text in interesting ways. PolyFont may be traced in Soft Logik’s BME and used as a structured drawing in publishing. You could also use PolyFont and *TypeSMITH* by Soft Logik to make your own custom PostScript fonts. I wish PM offered a way to directly convert PolyFont and its structured paint objects to DR2D and EPS format for easier export to other programs. As it is, you must export as an IFF and trace in BME to get a DR2D file.

Features

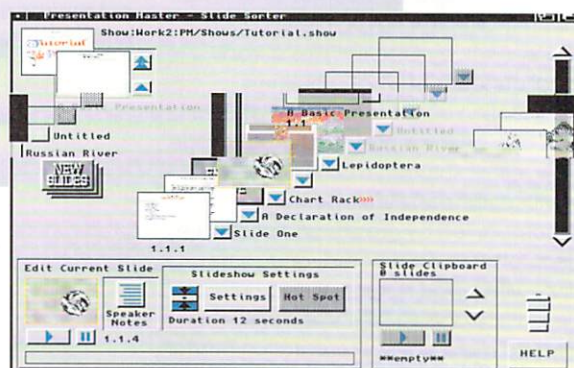
A thick manual with tutorials explains dozens of features, and 13 disks come with the package. The disks contain many fonts, templates, clip art and so on, but the installation is easy, using the standard Commodore installer program. You will need a hard disk space of almost 6MB to hold modules, backgrounds, and templates, not counting fonts and clip art. Fonts will fatten up your fonts directory, and there are three disks of compressed clip art. I installed only a few of these clip art pictures taking up another 2MB. You are allowed to choose the paths for the program’s

components and selectively install items, so you can distribute them over your hard drive as you have room. Oxix supplies enough backgrounds, fonts, and templates to let you compose just about any presentation you can imagine. Besides these basic materials, PM gives you some advanced tools to compose and customize any sort of lettering, layout, object, or picture. A good set of graphing functions is included, as well. Utilities include a “slide sorter” to let you rearrange and sequence your presentation, and a “vulcanizer” to let you make stand-alone presentations to run on other machines. We create Slides containing Text, and/or Graphics. There is a screen on which we may create or edit text and graphics, charts and data, with associated moveable toolboxes; and a “slide sorter” screen in which we may arrange and play our entire show.

Slides

The basic unit is the Layered Slide. A layer is a region of the screen in which a list of user-selectable settings apply to a specific type of object. If you have a Text Layer, then Amiga text and text objects are affected by your settings, while if you have a Graphics Layer, then paint objects such as circles, lines, PolyFont objects, or Graphs made from Data are controlled. There are three main divisions of layers:

1. Template
 - Background Paint Layer
 - Basic Color Palette
2. Content
 - Text Layers
 - Graphics Layers (structured graphics)



- Image Layers (IFF bit maps)
- Title Layers (text headers)
3. Annotation Paint

Templates are the backgrounds for the slide which may be a picture of clouds, or a plain beveled surface with or without text, or simply a plain color. Over the Template, which contains the basic palette, we create as many of the Content Layers as we need to convey the information on the slide. The Annotation Layer is for adding information such as tints and shadings or anything at all, including text, that we need in the finished slide but which we don’t want to include as part of the original.

Each layer has sizing handles and a boundary. You may move, activate the layer (you can’t edit or move a layer until

it is active), or resize it. Graphic objects do not have to fit into their boundary, but text objects do. Text fonts may be selected, entered into a text layer, and edited as in a word processor. Graphics objects, in either spline or Bezier curves, are created with the structured paint tools, and edited from a separate toolbox. Graphs for data are created from their own toolbox, started from the paint toolbox.

The Slide Sorter

The slide sorter screen is reached from the text or paint toolbox, and allows you to rearrange your slides any way you wish. Small thumbnail images of the slides assist you to keep track. It is here that you determine the branching, the transitions (wipes) between slides, and otherwise edit the entire show. The current slide appears in a box of its own and a double click on its thumbnail returns to the edit screen. Slides obtain a hierarchy of "parent" and "child." The "root parent" appears in the upper left of the screen. Every slide that appears in the "rack"—reminiscent of a real slide sorter rack—is a "child" of the root parent. You may click on slides to see their children in the rack. There is also a control panel for editing, transitioning, and playing your presentations. You may add black transition slides or insert new slides in the sorter. The slide sorter allows you to insert "hot spots" into a slide to facilitate interactive slide shows that branch. No logic operators and the lack of ARexx

support prevent making any complex decisions automatically.

Text

PM has a full complement of fonts and a strong set of tools to manipulate text in your slides. PM directly supports Compugraphic, Amiga Outline, PageStream and Gold Disk fonts. Conspicuously missing are Adobe Type 1 PostScript fonts. However, the 35 standard PostScript fonts are supported through font equivalents included with the package. You may color or outline text, edit text, and select style such as italic, bold and underline. You may cause ASCII text to be associated with any slide for notes to be handed out or used by the narrator. A small editor is included for the purpose, or you may import ASCII text.

PolyFonts

PolyFont text is one of the unique things that make PM stand out. PolyFont is actually a graphic object, but you start out with a font and a text string. By selecting a type of operator such as Bend or Warp or Distort with or without Perspective, you can make the text into just about any shape. You can also make text follow a circle in 2-D or 3-D perspective.

Graphics and Charts

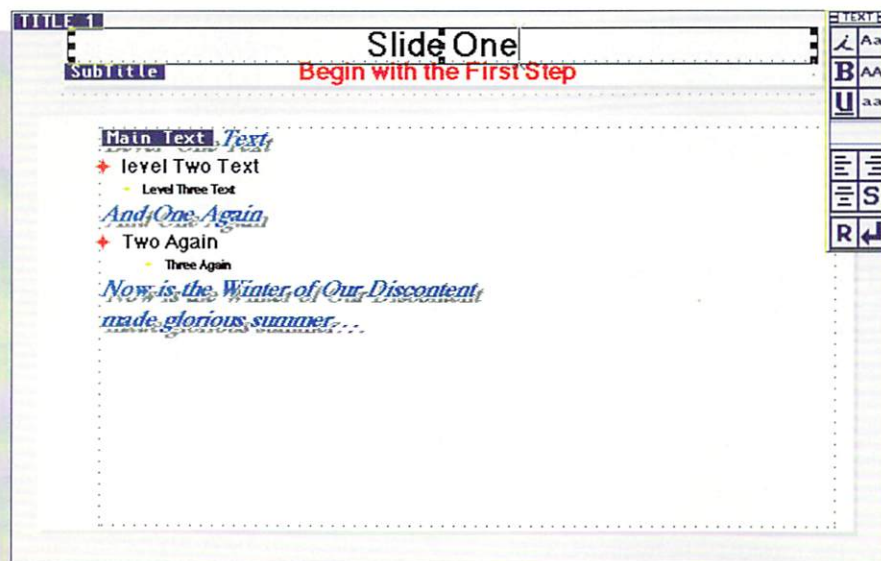
A full-featured structured paint program with a paint and an edit toolbox allows you to make any graphic

object you need to enhance your presentation. Charts with their own data bases can be drawn automatically. All the standard business graph forms are supported: pie charts, bar and gantt graphs, and line charts in 2-D or 3-D with selectable shading. A nifty little data sheet like a Lotus 1-2-3 spreadsheet allows you to enter data or text in tabular form before making a chart. Ranges are mouse selectable. Each chart has a control panel to let you select its characteristics, to best show your data. Best fit curve fitting and spline charts are also supported, as is cumulative/non-cumulative data. You can serve your pie charts by splitting off a piece. Legends may be automatically created as well. You may toggle back and forth between data and the graph plot to see how changes look.

Conclusions

If you are preparing a traditional slide show for business, there probably isn't a better single package than Presentation Master for hard-copy output combined with powerful creation tools. You hardly need any extra programs to produce your show, though you may need a bit-map paint program. As a true multimedia package, for anything but simple computer-run presentations, PM suffers from a lack of interactive logic, no ARexx, no sound, and no device-player features. On the other hand, no other multimedia package offers such chart/graph power or a structured paint package! PM's creation/edit tools are by far the best part of the package, and I'm frustrated that there aren't certain file format selections for export. PM's tools are so superior, that it's a shame not to be able to use them in their own right and export slides and selected objects as DR2D or EPS objects for use in other programs. Only IFF export is supported at the moment. There is no question that Presentation Master is unique, and a good value for the money.

Below, the Text Toolbox.



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(310) 427-1227
Inquiry #227

Computerized Learning Application Software System

Educational Software for the Amiga

by Rick Manasa

The Computerized Learning Application Software System, or C.L.A.S.S., is a set of educational programs, games, and exercises. C.L.A.S.S. is designed to help the preschooler through college graduate become familiar with using a computer as they learn and improve their spelling, math, and reading in an entertaining way.

C.L.A.S.S. is not copy protected and runs on any Amiga with 512K RAM, AmigaDOS 1.3 or higher, and ARexx. Two floppies or a hard drive are recommended but not required. C.L.A.S.S. requires certain libraries and files to be copied to your system before you can run the actual Install program. The included InstallX-Libs program handles the dirty work for you. The included

Installer program provides a variety of options to allow you to customize certain aspects of the program. Just click on your options and select Install from the Project menu. While not as quick or slick as Commodore's Install program, it beats doing things by hand for those uncomfortable with following the written instructions in the manual.

As with the companion program T.A.B.S., a good portion of the manual is spent describing AmigaDOS processes and conventions. This can be helpful to those new to their Amiga.

C.L.A.S.S. must be set up before running for the first time. Clicking on the Setup icon brings up a set of options similar in appearance to the Installer window. You'll be asked, via the speak: device, for your name and grade. This

makes it possible for C.L.A.S.S. to be used by different students at different skill levels.

The Spelling and Math quizzes are basic drilling programs, asking you to add or multiply problems, or spell words from a supplied list. You can choose to do the math with or without the speak: device reading the problems out loud, but the spelling problems require it to pronounce the word list. You can quit at any time by clicking on the close gadget. If you successfully complete a drill, you will be asked if you'd like to quit or try again. Since there is only one list per drill, repeating a drill would be most helpful if you have made any errors.

The reading portion of the program consists of a brief story about Alice and Sal and their special secret. C.L.A.S.S. gives you the option to hear your Amiga read the story and/or print it to the screen for you to read. By clicking on both the Say and Read icons, you can follow along as the story is read to you.

Tamo is a concentration-style game. A list of words is briefly displayed, after which you are asked to remember where they appeared on the screen. You're given 350 seconds to match all nine pairs. The attempts and matches are tallied as you go along. The time

Toaster Cozzy

by Merrill Callaway

The Video Toaster shipped in early 1991, a few months before the Amiga 3000. Each product caused a sensation: The Toaster tuned in affordable desktop video while the A-3000 was the ticket we needed to board the 32-bit bus and reach serious computing speeds. As the A-3000 appeared in the spring of 1991, some innovative soul immediately thought of matching it with a Toaster. Alas, the Toaster physically didn't fit!

Tinkerers with enough money or nerve not to worry about voiding their warranties discovered that a Video Toaster could be made to fit into an A-3000. By unsoldering, relocating, jumpering, and resoldering one of the BNC video connectors on the Toaster, you could clear the chassis opening, but

you voided your NewTek warranty, and some warned that the A-3000's power supply wasn't robust enough to drive the Toaster. Many people modified their Toasters anyway, because the A-3000 was just too cool—meaning speedy, with 2MB of chip RAM—not to have a Toaster inside. But no matter how you sliced it, it still wasn't what we call a "Class A" fit. Video being the technological maze that it is, it's simply not wise to mess around where you shouldn't unless you really know what's what, and have test equipment as well. Most of us require intact warranties, and we do video the factory recommended way, because video is already sufficiently complicated.

The Toaster 2.0 software made the Toaster fully compatible with the ECS

(Enhanced Chip Set) in the A-3000. Probably the fit incompatibility remained because of documented power supply glitches. Whatever the case we can thank Heifner Communications for solving the dilemma for those of us who insist on a Class A fit for our Video Toasters into an A-3000 system. Their Toaster Cozzy not only solves the fit and power problems, but it adds features to enhance our A-3000 video work stations.

Hardware

The Toaster Cozzy is a putty-colored metal box which matches the color and footprint of the Amiga 3000. It's just as wide as an A-3000 and a tad shorter. The box stands 2-7/8" deep. The Toaster Cozzy is designed to sit atop your A-3000, and will support a monitor and power console. Indeed you don't have much choice because a short, wide cable connects the back plane of the Cozzy to the back plane of the A-3000 video slot. A card plugs into the A-3000 video slot. The card has a connector for a shielded flat cable to carry the video bus out the

provided to study the word list and placement seems a bit short, but I may not be as quick on the draw as I used to be. I ended up ignoring the quickly erased list of words and started from scratch, as you would in a traditional concentration game. Prega is the most appealing program of the package. This card type game is similar to Yahtzee. You draw cards against the computer attempting to reach a total of 100 points exactly. You can have the speak: device report on your progress and select between a smart and average computer opponent. You can choose to display your score as you go along or hide it, forcing you to do the math in your head. You can poll your opponent's score, thus taking a chance on increasing your score. If you have more points at poll time than the Amiga, you win half the pot that accumulates with each turn.

The manual indicates that there is a T.A.B.S. icon on the disk that will let you run all the C.L.A.S.S. programs from T.A.B.S. While there was no such icon on my disk, it's easy to see that this program could be created in T.A.B.S. I'm not entirely convinced that it's worth the effort, however.

As with T.A.B.S., C.L.A.S.S. has an extensive appendix of message and



back of the A-3000 and into the Cozy where it plugs into a similar connector on a main circuit board which outputs to a video socket for the Video Toaster. The Cozy box has a 45-watt power supply just for the Cozy. The Cozy circuit board contains a stable black burst generator. You may sync the Toaster and four more devices to the black burst if they have a video/sync IN plug by connecting them to one of the five BNC connectors coming out the back. There are input and an output sockets for 110 volt AC. Line power is routed to the Cozy and a stub power cord routes 110 volt power to the computer. There is no power switch on the Cozy as it senses the power up of the computer and turns on automatically. Since the Video Toaster takes up only half the available Cozy space, there is an equal space on the right side for another device. The black burst circuit card has a second connector for a second cable and a second slot for a video card. The two-video-device bus is still under development by Heifner. You will eventually be able to mount another

video card such as an Opal Vision and a Toaster in your Cozy! You could also mount a hard drive or a Syquest here, or a Toaster Breadboard to correct time delay.

Installation

It's easy to install the Toaster. The black burst central circuit board is held to four stanchions by screws. Remove them and plug the Toaster into the video slot on the black burst board. There is a clamp composed of two plates held by pairs of nuts on two threaded rods. This firmly secures the Toaster by its grounding connector. The Toaster mounting plate attaches to the back plane of the Cozy with small screws. After aligning everything, put back the four screws you removed, and tighten everything down.

Next, install the flat cable and the small video card into the Amiga video slot. I told Heifner that if at all possible, the flat cable ought to be removable at the exterior of the computer, rather than inside. It would be well worth it from a maintainability standpoint. When you are

opening the Amiga, you have to shift the Cozy around carefully because it's always connected by that flat cable. Unless you disconnect the entire cable, it's awkward to open the A-3000 case to access components, particularly if your table space is cramped as mine is. The Cozy's metal corners managed to gouge some big scratches in my desk while I wrestled the card, cable, and cover plate into place inside my A-3000 because I couldn't lay it down flat behind my A-3000. Heifner replied that an exterior connector would add to the cost, and that's why they didn't implement it, but I still feel it would be worth it.

Another small glitch was that Heifner didn't supply screws to secure their custom cover plate. The Cozy cover plate clamps the flat cable between it and the chrome half of the original Commodore cover plate. The Commodore screws weren't 4-40 like the threads in the Cozy's replacement cover plate holes. I hope Heifner will include two 4-40 screws in the future, or tap their holes to match Commodore screws.



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REVIEWS

error codes. This may be useful for tracking down installation problems or getting some insight into the programmer's mind and method.

Wishes and Wonderings

I've got problems with much of the execution of C.L.A.S.S., some big, some small. The Installer won't let you select a directory within a volume. It forces you to install C.L.A.S.S. in a root directory. You can easily copy it elsewhere after the installation, but why this limitation? While you can select which files and programs to install, you aren't given any information upon which to base a decision. Is the C.L.A.S.S.1 Logo important or useful? Why wouldn't I want the C.L.A.S.S.1 drawer installed? Options without information leave you wondering, should I or shouldn't I? And why are there three separate installing programs: InstallX-Libs, Install and Setup? Why weren't these functions combined into one comprehensive program? Puzzling.

While you are given a wide range of grade levels, the program doesn't include a graduate level of spelling words. The college level had examples for about half of the word list. Whenever a program uses the speech capabilities of the Amiga for pronunciation-intensive work, examples are critical. Both of these glitches can be dealt with by creating your own lists and examples using a text editor or word processor, but this shouldn't be necessary.

If C.L.A.S.S. has a strength, it is in its ability to read from user-created lists of files and stories. Unfortunately, no information is given on how to accomplish this. It is not a difficult thing to create, but given the intended audience, a little help in the manual would be appreciated. Not everyone knows that lists of words can be created in their favorite word processor, or that the lists should be saved as an ASCII file.

The lack of graphics and music is akin to the kiss of death for any educational program, especially one with such good graphics and sound capabilities as the Amiga. I'd much rather listen to a good story teller or read along in a book than stare at a computer screen and read the text that a monotone computer is mispronouncing. I can't imagine any child putting up with this for long.

Conclusions

Like T.A.B.S., C.L.A.S.S. seems to have been born as a college class project.

While all programming, especially in the educational area, is to be encouraged on the Amiga, I can't see enough substance here to warrant an unqualified recommendation. Prega provides a good challenge for those who like puzzle or card games, but I've seen as good or better games in the Fred Fish catalog. As public domain programs, both C.L.A.S.S. and T.A.B.S. would be worthy efforts. As commercial endeavors, they leave much to be desired.

**C.L.A.S.S.
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Inquiry #228**

**Special Requirements: 1MB RAM, two
floppies or a hard drive, Workbench 1.3 or
higher and ARExx**

—Toaster *continued*

Contrary to the instructions, it was easier to clamp the cable first, then secure the cover plate, then plug the cable into the card, finally securing the A-3000 cover. The cover of the Cozzy is secured by four screws, making access to the interior of the Cozzy quite easy, but you should not attach the cover until you make sure everything is working properly.

Arcane Toaster Lore

For the would-be videographer, the six-page Xeroxed Cozzy "manual" is adequate for the physical installation but not adequate for setting up and adjusting the Toaster within it. Heifner's telephone technical help is excellent, but in a product this expensive they ought to include better calibration information in the instructions.

Timing

The Video Toaster makes heavy demands on your system's display timing, particularly on the Denise (display) chip. The parallel port also drastically affects the way the Toaster works! I noticed my display enhancer adjustments were off

once the Cozzy was attached. My formerly stable display tore horizontally. Redoing the video-adjust procedure outlined in the A-3000 hardware manual *Introducing The Commodore Amiga 3000* (page C-7 ff) fixed my multi-sync display once the Cozzy was there, but there are three more adjustments which affect your display, especially the Toaster user interface. There are no procedures outlined in the Cozzy or the Toaster manual regarding how to do these. Notes on a drawing of the Cozzy black burst board only hint at how to do it. The Cozzy manual told me to "refer to NewTek's instructions on adjusting the Toaster cards 'air cap' adjustment." I wrongly assumed that "NewTek's instructions" exist in the Toaster manual. These "instructions" only exist if you telephone NewTek and get them verbally! I will not amuse you further with the convoluted sequence I went through to dial in my Toaster. I will, however, summarize some arcane Toaster knowledge I discovered along the way which will help you adjust your Toaster/Cozzy installation. I will have shared this information with Heifner, and I hope that by the time you read this their instructions will be more complete.

1) The Toaster manual warns that if something is attached to the parallel port, it may affect the Toaster. NewTek recommends turning your printer off. My Toaster wouldn't come up properly unless my printer (an Epson EPL-7500) was on! My parallel cable runs to a four-way switch box. I have to turn my switch to an unused position or turn my printer on before my Toaster works properly; don't ask me why. Once the Toaster starts, there may be colored screens that flash to tell you what the Toaster is trying to do: a green screen says the Toaster is having trouble syncing to the video coming into INPUT #1; a red screen means the Toaster is having trouble calibrating itself, or having trouble with hardware such as the Denise chip; a blue screen is normal, as are grayish flashing screens. If you get a green screen, try disconnecting anything from INPUT #1 until after the Toaster comes up. Then connect. If you get a red screen, try disconnecting the cable from your parallel port. The Toaster is struggling if either a red or a green screen appear. Even though it may

come up OK eventually, it will take far too long.

2) Connect a good color video source, such as your color video camera or an NBC broadcast signal but not a tape recorder, CATV, or a BW camera, to INPUT #1 after the Toaster comes up.

Measure the voltage with a volt meter of a contact point on the Toaster marked ERR1 next to a screw adjustment, the "air cap," on the top of the Toaster board, a screw with solder around it. Put the red (+) lead to ground (the chassis) and the black probe (-) to ERR1. Your meter should read between 1.8 and 2.1 volts. If it doesn't, adjust the air cap slowly until it does. Use a TV alignment tool or the video adjust tool from the A-3000. If you don't have a VOM to measure the voltage, use the Program Out monitor with the test pattern and turn the air cap until the color turns to shades of gray, then back the other way until you get gray again. The proper adjustment will be in the middle of the color. Now connect the black burst.

3) The black burst may not work at first. If you connect to INPUT #1 from one of the five black burst outputs, your display may jitter, or you may get a "Toaster Not Responding" message if you try to start the Toaster with it attached. Get the Toaster up and running without the black burst connected to INPUT #1, and After you have adjusted it to a video signal. Then connect the black burst. Using the alignment tool that came with your A-3000 for fixing the Video Adjust, turn slowly the trim cap C21 (the small green cylinder with a screw in the center) on the black burst board until the jitters go away. If they don't, turn the red trim C2, which is the coarse adjust. It will drastically change the black burst, so turn it only a minuscule amount, then use C21 to fine tune.

4) Recheck the voltage across the Toaster's ERR1 and ground. When everything is adjusted properly, the voltage will be correct whether video or black burst is connected to INPUT #1.

NOTE: The Toaster might still work even if things are not aligned properly and your parallel port is causing problems, but it will take minutes to come up, and flash red and/or green screens. After I

tweaked these adjustments, my Toaster comes up in 35 seconds instead of after several minutes. You may have to do a final tweak on your A-3000 video adjust to get the Toaster interface screen jitter free. I found when the Toaster and display are working properly, the Video Adjust Test 3—super hi-res with the display enhancer off—doesn't work; the display is unreadable. Everything looks fine with it on, however.

Conclusions

Heifner Communications' Toaster Cozzy is an important piece of video hardware if you own an Amiga 3000 and want a Class A fit for a Video Toaster, and the peace of mind a valid warranty brings. As you may have gathered from my experiences, video has enough complications without adding unnecessarily to the risks and worries of weird glitches! I strongly recommend the Cozzy because it adds an essential and economically-priced black burst generator to your system, solves the

power supply and the fit problems of the Toaster in the A-3000, and offers expandability in the future. The Cozzy is well engineered, rugged, and easy to open for adjustments. If it had more information in the instructions and an easy disconnect from the computer like every other peripheral, it would be even better, but these are minor concerns compared to how well it functions once you properly adjust your Toaster in its Cozzy.

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AdRAM 540

A Memory Expander for the Amiga 500

by Henning Valenkamp

Unless you use your Amiga 500 primarily for playing games, you'll quickly discover that its standard 512K RAM just isn't enough. Today's "serious" software is bigger than ever, requiring more memory than before. Multitasking several such programs, or running even one, is becoming increasingly difficult, if not impossible, on a stock A500. As a matter of fact, games as well are raising the memory ante to 1MB or more.

Essentially two different kinds of memory expanders are available to help solve this RAM crunch. The first is the A501-style 512K card. Although very cheap, these small cards, which plug into the internal expansion slot, should be avoided. They're a dead-end street; 1MB

Unlike the 512K cards, installing the AdRAM requires disassembling the computer. So if it's still under warranty or you're wary about tinkering inside it, you should have your dealer perform the installation. Along with the main board, which plugs into the expansion slot, a secondary board must be sandwiched in between the Gary chip and its socket. Removing Gary as well as reinserting it with the secondary board requires care to avoid damaging any pins. A ribbon cable connects the two boards.

The other major installation phase involves configuring the AdRAM. The AdRAM 540 accepts up to 4MB RAM in 512K increments, called memory banks, using four standard 256Kx4 dynamic RAM

since late 1989 and nearly all since late 1990 contain this chip. The advanced installation requires 512K in bank four, setting another jumper on the secondary board, and a bit of soldering. Thus bank four can contain either chip or expansion memory. You must solder a wire between the secondary board and a jumper pad to the right of the CPU. Cutting the old connection on the pad plus attaching the wire can be tricky. This is definitely not a job for the inexperienced.

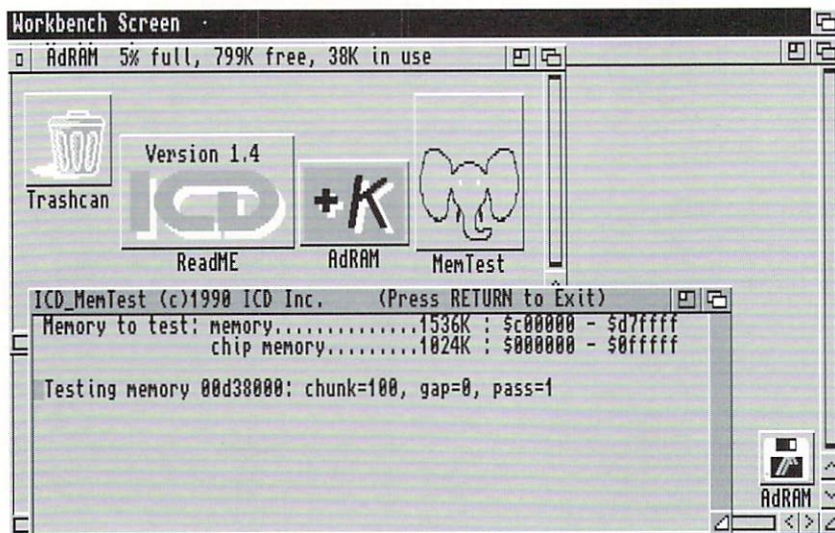
If you really need more than 4MB additional memory, you can buy an AdRAM 560D daughtercard for your AdRAM 540. It sits directly atop the 540, plugging into a reserved socket. Bank one of the 540 must be populated, and two of the chips in this bank must be moved to the 560D. The 560D accommodates up to 2MB in four banks, using the same 256Kx4 dynamic RAM chips.

I especially appreciate the AdRAM 540's built-in clock, although it has been a source of trouble for some users. Several reports in "Bug Bytes," for instance, in AC V8.4, detail hardware problems with the clock circuit, causing unreliable operation. On the other hand, I have experienced none of these problems, as my AdRAM's clock works perfectly. Presumably, the defect was present in earlier revisions of the board and has been fixed in the meantime. In any case, you should test your AdRAM thoroughly for this problem. The clock maintains the system time via the AmigaDOS SetClock command, and its power-slingy lithium battery should last at least three years—mine is already on its second year.

On a final note, as the Amiga memory map in the manual illustrates, the AdRAM can potentially use the higher 4MB of the autoconfig space. Consequently, any other memory expanders attached to the expansion bus on the left side of the computer will be limited to the lower 4MB of this space, regardless of how much memory is installed in the AdRAM.

In all, I found the AdRAM 540 to be a reliable and valuable addition to my A500. The only possible compatibility problems involve a few older games that choke on expanded machines—a rather insignificant point. The manual does a good job explaining installation and operation, but a few pictures for the chip RAM upgrade would be appreciated. A useful memory-testing program on the accompanying disk rounds out the package.

Extra memory is probably the cheapest way to power-up your computer, so there's no reason to be crippled by the 512K limit anymore.



of total memory is still generally insufficient, and they can't be upgraded. On the other hand, the multi-megabyte expander, available as an internal or external card, or as part of a hard disk subsystem, is a better choice.

Of the internal variety, the AdRAM 540 allows you to add up to 4MB to your A500—and includes a battery-backed clock. Using it in conjunction with the AdRAM 560D daughtercard yields up to 2MB more for a maximum 6.5MB of system memory. You can even configure 512K of this extra memory as chip RAM if your machine has a 1MB Fatter Agnus. More on this later.

chips per bank. Eight banks are arranged sequentially on the board, and must be populated in that order. In addition, the computer automatically recognizes only the first four banks, so a tiny program is provided to add any remaining ones to the system. Simply put it in your startup-sequence. You also have to set two jumpers on the secondary board reflecting the amount of memory installed along with the enable jumper on the main board.

As mentioned earlier, you can upgrade to 1MB chip RAM if you have the Fatter Agnus chip—the "advanced installation." Some A500s manufactured



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AMOS

AMOS
Professional
is a
major update
and is being
touted
as a
comprehensive
development
system
for the
Amiga.

AMOS BASIC opened up a whole new world for BASIC programmers, allowing even novice Amiga programmers to create spectacular graphics and animation routines that were previously only accessible with lower level languages. Europress Software has now released *AMOS Professional*, a major update which is being touted as a comprehensive development system for the Amiga. In the first installment of this two-part review, I'll examine only the enhancements to AMOS Professional over AMOS. Part two will look at the included programming accessories and examine the strengths and weaknesses of the language.

Francois Lionet has listened to users and added many requested improvements. The original AMOS was an outstanding achievement, but there were still complaints about the editor window and lack of pull-down menus, the weird file requester, non-Intuition screens and the original manual. AMOS Professional comes on six floppy disks consisting of a system disk, an examples disk, a tutorial, two productivity disks and a disk full of accessories. It contains an install program that copies all six disks to your hard drive. The install program functions perfectly, but make sure you boot from the AMOS Professional system disk as it looks for assigned files during the install process. If these files aren't found, the program will abort in the middle of installation. If you don't have a hard drive, it is possible to run AMOS Professional from floppies.

The Editor

The first major change you'll notice is a completely revamped editor containing pull-down menus instead of the old button style menus. This allows for nearly twice as much of your source code to be visible in the edit window. There is still one row of buttons at the top of the screen for immediate access to the monitor, on-line help, and other frequently used items. It is now possible to open any number of edit windows with each containing an individual program, copying and pasting between programs is a breeze. You may also open more than one window with the same program listing. This split view allows users to edit two separate sections of code in the same program without having to scroll through the listing. Whenever you make a change in one window, the other window is updated automatically. I wish more word processors had this option. Autosave saves your program at regular intervals. The Autoresume option remembers your current editing environment including all programs and currently opened windows, so the next time AMOS Professional is loaded you can start programming exactly where you left off; even the cursor position is remembered. Macros may be assigned to any key. Each macro can store up to 400 key strokes and any number of macro definitions may be stored on disk. Additional editor enhancements include an option to check if your program is compatible with AMOS 1.3, and the ability to list your program directly to the printer. This last option will be welcomed by users of the original AMOS, which forced programmers to select their entire program as a block of text and then to choose Print Block from the menu. AMOS Professional is extremely customizable. Almost everything in the system is user

The object editor lets you design bobs, sprites, icons, and even plays back animation sequences.



Turns Professional

by Jimmy Rose

configurable, from screen colors to system messages to menu items. It is even possible to replace the editor screen with your own version that you've created with any commercial paint program.

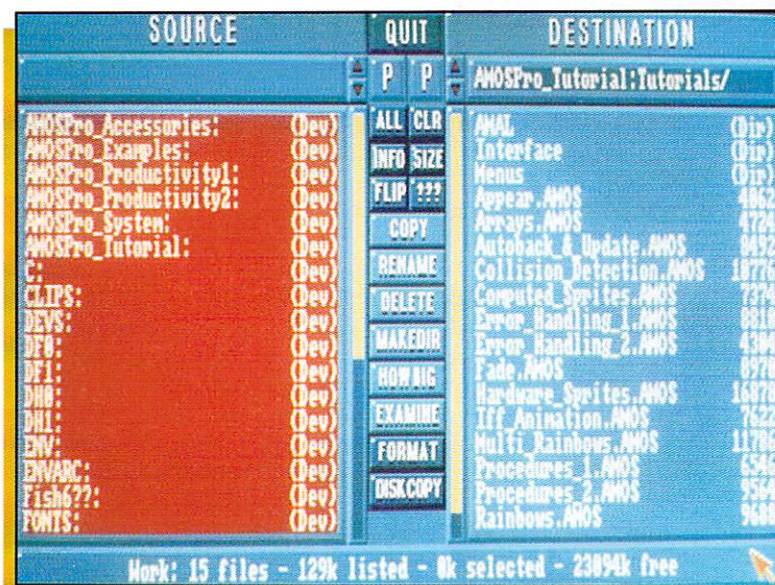
The file requester has been completely rewritten. Gone is the quirky requester that required users to manually set the current directory. The new version automatically sets the current directory to where you loaded the last file from and now employs a smart parent routine so it doesn't have to re-read the entire directory when you click on the parent button.

The Manual

The AMOS Professional manual is vastly improved over the original. The new manual contains over 650 pages, 13 chapters, 9 appendixes, an alphabetical listing of all 793 commands and functions as well as a thorough index. There is also an Applications Supplement booklet enclosed that details programming techniques of programs included on the productivity disks. The first chapter of this booklet offers insight into designing and programming your own games and applications from start to finish. The AMOS Professional manual is co-authored by Stephen Hill, who wrote the successful "Amiga Game Makers Manual," and Mel Croucher, who did a nice job with the "Easy AMOS" manual.

Help

AMOS Professional is equipped with an extensive on-line help feature. Clicking on the Help icon or pressing the Help key brings up the Help menu with access to descriptions and formats for every available command. This is invaluable for referencing commands with numerous parameters without having to



The disk manager accessory permits you to perform routine chores without leaving the AMOS environment.

pick up the manual every few minutes. Furthermore, you can place the cursor over any command in your source code, press the Help key, and instantly access information for that command without having to go through a series of menu selections. This HyperText-like feature was written entirely with AMOS Professional, as were all the accessories, making it possible to incorporate this feature into your own programs to provide on-line help, instructions, or information at the click of a button.

Language Enhancements

AMOS Professional now supports IFF animations. You can create animations with *Deluxe Paint* or any commercial package that produces IFF compressed (mode 5) animations, load them directly into your AMOS programs and play them back at 25 frames per second, which is supposedly faster than *Dpaint*. Options to load and play only selected animation frames are also available.

Commands

for opening

and

closing

ARexx ports,

checking for

messages,

and

sending

ARexx

commands

are included.

Sound is another area that has been improved. AMOS Professional now permits users to directly load and play *Soundtracker* and MED music modules with full MIDI support. Previously you were required to go through an intermediate conversion process.

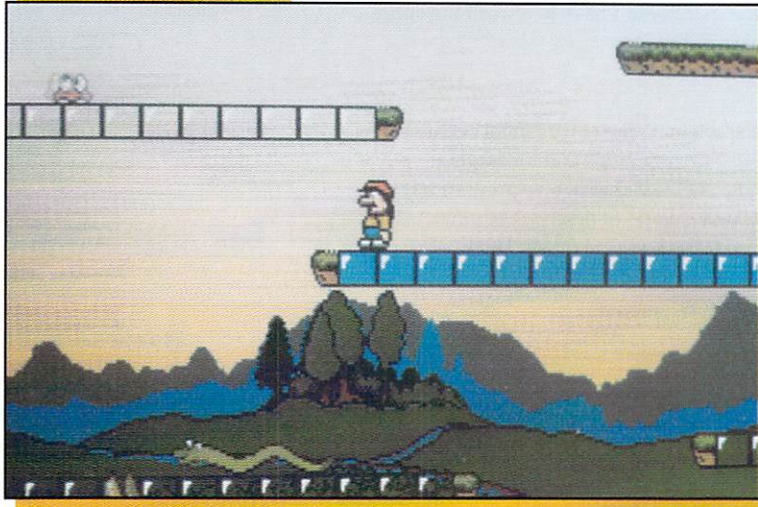
Memory banks are used to store program data such as sprites, music, AMAL routines, packed pictures, etc. The original AMOS limited users to 16 memory banks. AMOS Professional allows up to 65535 memory banks!

Interface Language

The most impressive addition to the AMOS environment is the new interface language. It is a complete sub-set of commands for creating any type of buttons, file requesters, or dialog boxes that you can imagine. It consists of over 100 commands and is similar to AMAL (AMOS Animation Language) but more powerful! Seasoned AMOS programmers will spend most of their time learning to tap the resources of the Interface Language since the learning curve is a little steeper than other aspects of the system.

However, you will be rewarded with the ability to create very impressive user interfaces comprising buttons, scrolling selection boxes, dialog boxes, etc. In fact the entire editor control panel was produced using this sub-language. Imagine creating your own adventure games with a totally mouse-driven interface such as those employed by games like *Eye of the Beholder* or *Dungeon Master*!

The Interface Language consists of numerous graphics commands for drawing all types of buttons, boxes, and screen zones as well as commands for variables and control structures embedded inside the interface routines. Furthermore, it is possible to design your buttons, requesters, and control panels with your favorite paint program and grab them using the Resource Creator accessory. The images are held in a Resource memory bank and are called from the Interface Language using an "UNpack" command. The Interface Language, like AMAL, is implemented using interrupts. After creating your interface, you simply use commands such as "Dialog



Wonderland, a complete Mario-like arcade game, is included as a programming example.

Open" or "Dialog Run" to test for user input. There are special commands for creating scrolling selector boxes and reading AMOS Professional arrays into the interface routine, making it easy to open a requester, display a list of items held in an array, double click on an item, and return the result to the main program.

Communication

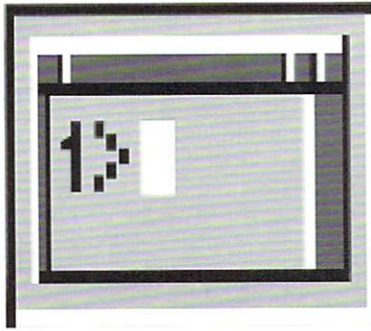
The original AMOS incorporated limited support for sending output to the printer with only the Lprint command utilized. AMOS Professional has greatly enhanced printer support by employing embedded commands inside the "Printer Send" command. You now have access to all features supported by your printer like italics, underline, superscript, letter-quality, etc. Printing of screens is accomplished with the "Printer Dump" command. You can print the entire screen as it appears, print only a selected portion of the screen, or print either with different aspect ratios. Commands for checking to see if the printer is on-line, if an error has occurred, and aborting the printing operation are also included. Serial Port operations have been updated as well. In addition to the "Open Port" command, there are 16 new commands for dealing specifically with serial operations, making it much simpler to design play-by-modem games, BBS applications, or MIDI interface routines. There are similar commands for working with the parallel port in case you need to access a device other than the printer.

Arexx is now supported by AMOS Professional. Commands for opening and closing Arexx ports, checking for messages, and sending Arexx commands are all included. This is a very powerful addition to the AMOS system, allowing you to control any Arexx-supported application from within AMOS Professional. You could design an entire multimedia system using AMOS as a front end. Exchanging data with other programs that support Arexx like *Superbase* and *Prowrite* is easily accomplished.

Clearly the potential of AMOS Professional is astounding. Next time we will examine the programming accessories that accompany the language, find out what's lacking, and discover whether AMOS Professional lives up to its billing as a complete development system for the Amiga. So far, I like what I see.

•AC•

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cli by Keith Cameron directory

For the past few issues, I've been dealing with what I call luxury commands; that is, commands which enable the user to dress up his or her Amiga to some degree. For the most part, though, these commands aren't essential to the day to day operation of a computer. Because of some letters I have received recently from some users new to AmigaDOS, I have decided that it's time I got back to basics.

The first few articles I wrote for *Amazing Computing*, even before I began writing "cli directory" last year, dealt with such basic AmigaDOS commands as CD, DIR, and MAKEDIR, but only on a cursory level. With the release of recent versions of AmigaDOS, especially version 2.04, these commands and others have taken on some new features which have prompted me to review them again. In the next few months, I'd like to cover these commands in greater depth. To simplify things, I'll cover them in alphabetical order, beginning with CD.

I originally covered the use of CD in the December 1991 issue. At that time, I only discussed how CD can change your current directory. There is more that CD can do, though, especially if you are working with a later version.

First of all, CD with no argument simply informs the user of the current directory. To change the directory, you simply type something like this:

```
CD ARTICLES <RETURN>
```

This will cause the directory ARTICLES to become the current directory. CD is also able to follow paths to subdirectories, as in this example.

```
CD DF1:AMAZING/CLI/ARTICLES <RETURN>
```

After executing this line, ARTICLES becomes your current directory.

To back out of a subdirectory, you have several options. You can retrace the path to another directory, as shown below.

```
CD DF1:AMAZING <RETURN>
```

Be sure to specify the drive first. If you only name the directory, you would be told "object not found." Another method is to use the slash to back up one directory at a time, as demonstrated here.

```
CD / <RETURN>
```

This would move you to the parent directory, which is the CLI directory of the command line illustrated a few lines above. Likewise, you could move all the way up the directory tree by including one slash for each directory. If you were in the ARTICLES directory and wanted to return to the AMAZING directory, for example, you would type

```
CD // <RETURN>
```

Three slashes in turn would take you to the root directory in the DF1: drive. A quicker way to return to the root directory, however, would simply be to type this:

```
CD : <RETURN>
```

The CD command also uses pattern matching. Pattern matching is a method that allows users to use wildcard characters to execute commands. Basically, it's a system to allow work reduction as far as I'm concerned. As regards CD, this is especially useful if you can't remember the precise name of a directory you want to CD to.

Say, for example, that you want to CD to a directory, but you can't remember if its name is ARTICLE or the plural ARTICLES. Now, you could get a directory listing, but a quicker way is to use

CLI 101

Intro to the Amiga Command Line

the pattern matching feature of the CD command. Here is what you would type if the target directory were in the root directory.

```
CD ARTICLE#? <RETURN>
```

Once AmigaDOS finds a directory which matches the pattern of the characters in the example, the command will be executed. Thus, whether the directory has a singular or plural spelling, it will become the current directory.

In pattern matching, you have the option as to how many letters you use before using the wildcards. If you had another directory named ART, for example, you would need to use the first four letters ("ARTI"); otherwise, AmigaDOS would be confused and would return a message like "directory not found."

Although most people are aware of how to use CD to move around, few actually use the pattern matching facility. It can be useful.

So much for CD; now on to COPY.

In the December 1991 issue, I simply showed that COPY would make a copy of a file and place it in a designated place. Although this is how it's probably used by most people, it really does much more than this.

One feature I like about COPY is that it can copy entire

directories. This includes all directories and subdirectories within a directory. Let's use the example from the section on CD. If you recall, there is a directory called AMAZING which contains several files and a directory called CLI. In turn, CLI contains several files and a directory called ARTICLES. To copy all of these to a directory called COMPUTER in the root directory, you would use the ALL argument, as illustrated here:

```
COPY AMAZING TO COMPUTER ALL <RETURN>
```

As all of the files are copied, each would be written to the screen. If you don't want them to appear on the screen, you can use the QUIET option, as demonstrated here.

```
COPY AMAZING TO COMPUTER ALL QUIET <RETURN>
```

If you just want to copy a few files to another place, you can do so with one command line, as illustrated here.

```
COPY FILE1 FILE2 FILE3 TO DF1:NEWPLACE <RETURN>
```

Be sure to include a space between each 'from' file. If you happen to name a directory which does not exist, AmigaDOS will create a directory by that name for you. Also, "TO" is not actually necessary for executing this command, but it does help me to keep things in perspective, so I use it. If you've been reading my column of late, you will recall that a month back, I wrote about protection bits. When you copy a file, the protection bits of the original file are copied as well. This can be changed, though, by specifying one or more of the following arguments in the command line: DATES, COM, NOPRO, and CLONE. Let's examine these one at a time.

When you copy a file, the creation date of the copy is used rather than the creation date of the original file. However, if you want to use the date when the original file was created instead, use the DATES argument.

If there is a comment attached to a file, use the COM command to have it copied to the TO file. Such comments can be originally created by various means, such as with the FILENOTE command.

Use NOPRO to apply the standard protection bits to the TO file. Doing so will not copy the protection bits of the FROM file. The standard protection bits, by the way, are "rwed"; that is, "read," "write," "execute," and "delete."

Finally, if you want the date, comments, and protection bits of the original file copied to the TO file, then use the CLONE argument.

In the near future, I hope to write an article about creating scripts. An argument useful in scripts is NOREQ. This argument prohibits a requester from appearing when a COPY command cannot be executed. Whenever such a requester appears, all action is suspended while the computer waits for a response from the user to the requester. In scripts, this can be a nuisance. However, with the NOREQ argument, no requester appears and the execution of the script file continues, even if the file designated cannot be found.

As with CD, COPY also allows pattern matching. Say, for example, that I have named the articles for my *Amazing Computing* column ARTICLE01, ARTICLE02, ARTICLE03, and so forth. Say, also, that in the same directory I have several other files. Now, in order to clean my directories a bit, I want to copy my ARTICLE files to another directory, but I don't want to copy the other files. There are different ways I could handle this.

The most time consuming method would be to copy one file at a time, one command line at a time. How tedious! A slightly faster method would be to name all the files on a single command line, as described earlier in this article. The easiest way, though, would be to use pattern matching in this manner:

```
COPY WRITING/ARTICLE#? TO DF1:AMAZING <RETURN>
```

Now in a single, short command line, all 5, 10, 20, or 100 files would be copied.

Another basic AmigaDOS command that uses pattern matching is DELETE. As with CD and COPY, I also discussed this command briefly in the December 1991 issue. Take care in using

DELETE. Once you delete a file, it is almost impossible to recover it. Yes, there are recovery programs on the market, but if you are reading this article to learn how to use DELETE, chances are you don't have such a program. It would be wise to experiment first using dummy files which you create for the purpose of testing this command. Simply use a word processor, text editor, or other application to create empty files.

Using the example just discussed in the above paragraphs, say that I wanted to delete all of the files with ARTICLE in their name from the directory. If only related files were in the directory (that is, only files related ARTICLE), you could use the ALL argument to delete everything in the directory, as shown here:

```
DELETE WRITING ALL <RETURN>
```

Be forewarned that the ALL option will delete subdirectories within a directory, as well as files. Once again, you must be very careful with this command.

If there are other files in the directory which I don't want to delete, I can use pattern matching, as in the following sample.

```
DELETE WRITING/ARTICLE#? <RETURN>
```

As I warned above, be careful about using DELETE, especially in such a situation as this. If you do see things begin to go awry, you can press Ctrl-C to abort further files from being deleted. Pattern matching is worth experimenting with. There are several approaches. So far, I've demonstrated with using a beginning pattern, but it can also work in the opposite manner; that is, you can use the ending as a matching pattern. Say, for example, that you want to delete all of the .doc files from a directory. You could do so in this manner:

```
DELETE DIRECTORY/#?.DOC <RETURN>
```

As with COPY, you can specify more than one file on a command line. If you wanted to delete only three files, you could do so in this manner:

```
DELETE FILE1 FILE2 FILE3 <RETURN>
```

As with the copy command, there is a QUIET option for DELETE. Use it if you do not wish to see a listing of the files as they are deleted. Here is an example.

```
DELETE DIRECTORY ALL QUIET <RETURN>
```

Personally, in most instances I like to see the files listed so in case something goes wrong I can hit the "panic button" (Ctrl-C).

If you discover that the 'd' protection bit has been cleared, you will not be able to delete a file unless you use the FORCE option, as shown below.

```
DELETE DIRECTORY ALL QUIET FORCE <RETURN>
```

If you are an avid Shell user, you really should begin trying to use CD, COPY, and DELETE to their fullest. They can speed up your command line usage and make your computer time more efficient. Even more important, you should learn how to use pattern matching. Next month, we'll examine a few more basic commands in depth.

•AC•

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bug bytes

by John Steiner

The latest in tips,
workarounds and upgrades

In the electronic mailbag this month, I received a letter from Thomas Breeden of Aglet Software. He comments, "I've long been a satisfied user of the Benchmark Modula-2 development environment on the Amiga. Unfortunately, it appears that Avant-Garde software, the source of Benchmark M2, has lost interest in the Amiga market, and is unlikely to offer an upgrade from its current AmigaDOS v1.3 support.

"Nevertheless, the compiler and the Source Level Debugger both run fine under 2.0, and I, for one, still think that M2 + Benchmark's compiler and debugger make a superior software development environment for the Amiga.

"Consequently, I've gone ahead myself and created a complete set of v2.04 interface DEFINITION modules for the Benchmark compiler. These very closely follow the 'V2 C Includes' as distributed by CATS: all the structures have M2 RECORD analogs, all the function calls are there." He has also created the .OBM files for calling the system functions from Benchmark programs. Mr. Breeden has developed the routines into a two-disk package for Benchmark users. He is making the package available for \$35. Interested users can contact him for more information at: Thomas Breeden, Aglet Software, PO Box 3314, University Station, Charlottesville, VA 22903.

Ron Legro sent CompuServe E-Mail regarding the April '93 column item concerning Saxon Industries. He notes that they've changed their name. Here's the latest address information he has: Emerald Graphics, 87 Union St., Ottawa, ON, Canada K1M1S2, 613-745-6049.

He has not been completely successful in getting a response from their technical support staff. In his most recent contacts, he talked to Emerald Graphics tech support regarding both Saxon Publisher and SaxonScript. "I had to call many times before someone even answered." He further noted that once he was able to contact them, it took three phone calls before he was successful in getting Emerald Graphics to upgrade his copy of *Saxon Publisher* 1.0 to 1.1.

He also ran into problems with SaxonScript, which is a bundled Postscript interpreter that is also sold separately. Since Saxon Publisher outputs only Postscript code, unless you have a Postscript printer or interpreter, Saxon Publisher is unable to print.

He notes, "When I explained to Emerald's tech support man

that SaxonScript failed to work on either of my two differently configured Amigas, he expressed concern that I had followed in the path of other unfortunate users and mishandled SaxonScript's complicated installation routine. Assured that I had handled it properly, the guy advised me that I might have a bad set of disks, and said free replacements would arrive shortly. That was close to two months ago. No new disks have appeared, nor have I been able to raise Emerald Graphics on the phone since then, though the number does ring."

Max Yoder of Arlington, VA, writes via CompuServe E-Mail regarding the April '93 "Bug Bytes" and Richard Starr's problem with his Amiga 2000 serial port. He notes, "Unlike the Amiga 500, the Amiga 2000 and Amiga 3000 both have a fuse in the +12 volt line (pin # 9 of the DB-25 serial port). In the Amiga 2000, it is F2. In the Amiga 3000 it is F300.

He notes that he is happy to see that AmigaDos 2.05 is out with built-in support for high-density floppy drives and he is curious to know if anyone has attempted to use IBM compatible high-density floppy drive units as they are inexpensive and easily available. If you have had any experience with high-density drive installation on the Amiga, pass on the information. There are lots of Amiga users who would like to take advantage of the extra space available on high-density disks, especially when it comes to backing up those enormous hard disks that seem to be commonplace now.

Last month, Kevin Davidson wrote with an upgrade notice for *Art Expression* from Soft Logik. This month he notes that *PageStream* 2.22 has been released. It is available as a patch file for downloading from the Soft-Logik BBS, Portal, GENie and CompuServe as well as FTP sites.

The new version allows users with AGA machines to open *PageStream* on custom screens with up to 260 colors. Also available are the following new import modules: *Final Copy* (text only), *Adobe Illustrator* (including Illustrator 3.0 format), *ProWrite* (supports ProWrite version 3.3) and *Art Expression EPS*.

Last month, Allan Anderson had a question about changing software to make it operate in one of the flicker-free AGA modes. Allen found a solution and sent E-Mail to pass it along. He mentioned a public domain program called NTSCforce which lets you force the screenmode on your 1200. He writes, "Its primary use is for forcing PAL programs to work in NTSC mode, but it can also force a higher MHz scan rate, which will force those old programs to stop flickering."

He continued, "Also, some few programs will not work in AGA mode; the graphics are distorted and impossible to use. The two that I have had trouble with are *Populous I* and *A-10 Tank Killer*. To get around this problem, one must hold down both mouse buttons during startup, so as to get to the system setup screen. From there you may select ECS or original chipset displays, with which the programs seem to work fine." Thanks for the comments.

Marc Crouse sent Portal E-Mail to comment on the clock speed enhancement mentioned in a previous "Bug Bytes." He notes that the file, 14mhz.zip found on BIX, does not seem to work well. "First, ground and power must be hooked up to the 74f74 flip flop. Second, it worked intermittently. Third, when it did work it ran at 12.5MHz so disk access was much improved."

Portal E-Mail from MagicFlute provided information about free upgrades to the Skyline II BBS system. MagicFlute went on to note that the development of the SKYLINE BBS SYSTEM has been transferred from CVI TELEPRODUCTIONS to HORIZONS UNLIMITED. The Main support board MIDI MAGIC BBS in New York City is offering free bug updates to SKYLINE II owners. The current version is 2.1b. The support BBS number is 718-846-6941. Modem access from 1200 to 14.4K baud V32bis Zoom. Access time is 24 hours a day, 7 days a week. Further information for owners of earlier versions can be obtained from the support BBS. Send E-Mail to sysop flute with inquiries.

David Martin of The Opcode Factory in Seabrook, TX, reports that the 1.05 version of *Procalc* from Gold Disk has an interesting bug. The PASTE CSV command from the menu EDIT->EXTERNAL->PASTE CSV has a problem importing CSV files correctly. For example:

```
"Name","Address","City","State","Zip"
```

```
"David","2000 ROM Way","Houston","Texas","54343"
```

The second line does not import properly. "2000 ROM Way" becomes only the numeric "2000" placed in an individual cell. The rest "ROM Way" is lost.

David has found a workaround to prevent the loss of the rest of the data; you must insert *one* space character at the beginning of the field. In other words, the proper way to format the data to prevent data loss would be:

```
"Name","Address","City","State","Zip" "David","_2000 ROM  
Way","Houston","Texas","54343" Note the underscore character in  
front of 2000 should be a space. Insertion of a space here will force  
the software to treat the cell as a text entry rather than a numeric  
entry.
```

David also notes that the CSV import feature also exists in *Professional Page*, but he has not taken the time to see if it also suffers from the same problem.

Juan Nunez sent Portal E-Mail with a question about his recently purchased GVP PC286 card for his Amiga 500. He writes, "I made a partition of my 105MB HD to 50MB for the PC286 (which was partitioned to a C: and D: drive at 25MB each). In MS-DOS 5.0, I called FDISK; it reported that I only had 10MB in each drive instead of 25MB. What's happened to my 30MB?

"Also, at boot-up of the PC286 during the memory test, the hard drive read light is on, for about 15 seconds which slows down the memory test." Does anyone who is familiar with the PC286 card have any suggestions for Mr. Nunez?

Jim Goos of Brockville, ON, Canada, writes with a question about RAD, the recoverable RAM disk that many people, including me, became accustomed to using on earlier systems. Since upgrading his A500 to 1MB chip RAM and Workbench 2.1, Jim noticed that RAD no longer functions. He comments that his Amiga dealer told him that RAD is not compatible with the 1MB fatter Agnus chip. He would like to use some kind of recoverable RAM disk, but doesn't know where to find one. If you are using a recoverable RAM disk under Workbench 2.1 with a 1MB fatter Agnus, please pass the information along.

Warner Jepson of San Francisco, CA, is having a problem with the *Video Director* from Gold Disk. He found that the library automatically saved by the program would appear to go bad regularly, become unusable or unpredictable, forcing him to rebuild the library from the beginning.

He comments, "I wrote Gold Disk in October, November, and December. They sent me another copy of the program and I sent them a bunch of my bad libraries, and a good one. I called them in January and they said they'd sent my disk to 'production', whatever that means. They've been of few words, have offered no help of any kind, only saying they don't know what's happening." If you are using the *Video Director* and have found a workaround, or if you have run into the problem, but were somehow able to overcome it, please pass the information along.

Mario Aguilar of Chula Vista, CA, writes with a problem that is, according to GVP, caused by a conflict between his GVP hard disk card with a Maxtor 120MB drive, and his Supra RAM board that he has populated with 8MB of RAM. The problem is that his drive, which is divided into four partitions, dh0 through dh3, displays erratic read errors on the two upper partitions. Anything stored on dh2 or dh3 may or may not display a read error when a file retrieve is attempted. The people at GVP recommend he dump the Supra board and install 8MB worth of SIMMs in the GVP card. The people at Supra, on the other hand, say that the problem could not be in their card, or in any kind of hardware conflict. They blamed the GVP FaastROM or a problem with the mountlist.

One experiment that might be tried is to partition the drive into two 60MB blocks, dh0 and dh1, instead of four. This would eliminate the two upper drive mountlists, and since the lower two partitions are functioning, if they continue to work, the problem would appear to be solved. If the newly partitioned drive starts demonstrating failures in either of the two partitions, the conflict theory would appear to be accurate. If you have run into this problem, and have a workaround, or even if you can verify for sure that Mr. Aguilar is going to have to sell his Supra card and use the proceeds to buy some SIMMs for the GVP board, let me know, I'll pass it along.

Kevin Breen of New Orleans, LA wrote to answer a couple of questions posed in an earlier "Bug Bytes." Victor Brown had questions about the clock speed up, and Mr. Breen provided a clear, concise description of how it works. "The Amiga master clock is already running at 28MHz, but the Agnus chip divides it down to 7MHz because the maximum [speed] the stock 68000 can handle is 8MHz. If you tap into the 28MHz clock and divide it by two with a simple circuit it can drive a 16MHz 68000 at 14MHz."

He continued, "Mr. Kwan's problem with his IOMEGA drive is perplexing. I've been using a Bernoulli drive with my A2000 and GVP controller for several months with no problems—it's great for Toaster animations and framestores. I did experience a problem similar to Mr. Kwan's when I installed a new Maxtor drive in my system. I formatted the drive and copied Workbench to it—it was designated as my boot drive—but forgot to write the Rigid Disk Block to it. When I turned the machine on the drive lights on all SCSIs came on and stayed on. Eventually I was able to boot from a floppy and correct the problem. Mr. Kwan should be sure he's properly formatted all of his drives, written RDBs to all of them, and assigned the proper priorities to them all. Since he has two IOMEGA

(continued on p. 91)

The World's First Multi-Platform Emulation System!

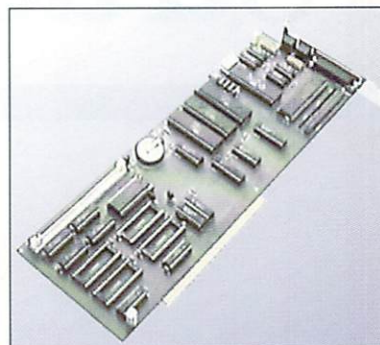
EMPLANTTM

(Electronic Micro-Processor Level Amiga Native Task)

EMPLANT is a hardware/software product that is designed to allow the emulation of virtually any computer using the Amiga. A simple software driver and ROM(s) from the computer to be emulated are all that is required! Custom programmable logic allows the EMPLANT hardware to actually become the exact hardware of the computer it is emulating! Multiple emulation modules can be run at the same time using a single EMPLANT board!

Support for custom EPROMs, static RAM, and SIMM modules makes EMPLANT compatible with all existing methods of storing a computer's operating system. Up to 2 megs of extra RAM (static) can be installed on the EMPLANT board. This RAM's contents will never be lost due to the on-board battery backup system. There is an on-board audio digitizer for emulations that can use it. A special processor slot allows the installation of custom processor boards (680x0, 80x86, 6502, Z80, etc.) for greater emulation speed!

Utilities Unlimited, Inc. offers four different versions of the EMPLANT hardware. Dual serial ports that can be used on the Amiga side can also be used with all emulation modules. AppleTalk, printer, midi, and serial support is provided through these two ports for the MAC emulation. A high speed SCSI controller allows any SCSI device to be plugged directly into the EMPLANT hardware (including scanners, SyQuest drives, hard drives, and more!). The EMPLANT hardware is a standard Zorro II/III plug in card for the A2000/3000/4000 (A500/1000 owners need a Zorro Bus adapter in order to use EMPLANT). A PCMCIA version for the A600/A1200 will be available in the near future.



About the MAC IIx emulation software

Support for up to 16 colors is provided for non-AGA machines. A4000 owners can use a full 256 colors! *Utilities Unlimited, Inc.* is working closely with video board manufacturers to provide support for video boards such as: The Resolver, DCTV, Firecracker, IV-24, EGS, Vivid-24, OpalVision, Domino, Rainbow II/III, and many more! Support for AMAX formatted floppies, MAC hard drives, SyQuest cartridges, AmigaDOS devices (RAD, VD0, DH0, etc.), and MAC floppies (requires SYBIL hardware, sold separately) is provided with easy to use setup menus. Like ALL of the emulation modules that will be released for use with the EMPLANT hardware, the MAC IIx emulation module **MULTITASKS** with the Amiga's operating system! You can simply pull down or flip screens and get back to the Amiga side! ...and the MAC stays running at full speed!

What about speed and compatibility?

A 25Mhz A3000 runs the MAC IIx emulation exactly twice as fast as a real MAC IIx! (The A4000 speed is incredible!) The emulation runs ALL known MAC programs! (In FULL color, if available)...and all while **MULTITASKING** with the Amiga!! (MAC IIx emulation module *requires* an accelerated Amiga - 68020 or 68030/68040 w/MMU) and 256K MAC ROMs (not provided). Not all emulation modules will require accelerated machines. Four megabytes of memory is recommended for use with System 7.

Future emulation

Since the EMPLANT's hardware is so versatile, a completely new and different computer can be emulated by just changing the emulation software patch and the ROM(s). MAC QUADRA, Mega ST, IBM AT (386/486), C64/128, Atari 400/800, and even game machine (Genesis/SNES) emulators are planned in the near future.

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SYBIL - Hardware for using 800K MAC disks with standard Amiga floppy drives - \$99.95

Shipping & Handling - \$10.00 per order (All orders shipped via UPS Blue/2 day service), C.O.D. Fee - \$5.00

All EMPLANT packages described above come with MAC IIx emulation software and necessary device drivers. ROM(s) are not shipped with this product. Sources available upon request. **Dealer inquiries welcome!**

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Structured Drawing

Presenting
a complete
look
at
structured
drawing
programs
for the
Amiga.

Structured drawing programs are the tools of choice for graphic artists, but may not be very familiar to the average Amiga user. This is a shame, as in many cases the average user will find it easier to get high quality results with a structured drawing program than with a bitmap program. In this article we will look at these programs and see what they can offer the Amiga user.

What Is it?

The first question by now is, "What's a structured drawing program?" The second may be "Are there any available for the Amiga?" The answer to the second question is, yes, there are several. *ArtExpression* from Soft-Logik Publishing, *ProVector* from Stylus, *Design Works* from New Horizons, and *Professional Draw* from Gold Disk are all structured drawing programs. What a structured drawing program does is a bit more complex.

Lines vs. Dots

When you draw a line in a program like *Deluxe Paint*, you are telling the program to turn a collection of dots a certain color. These dots are part of the whole picture which is called a "bitmap." When this picture is displayed under the same conditions as it was drawn, it will look the same. If the picture is shown larger than normal size, each individual dot will get bigger. After a while this will tend to look chunky, displaying "jaggies."

When you draw a line in a program like *ArtExpression*, you are telling the program that you want to draw a line from the point you clicked on to the point you let up on the mouse. When this picture is drawn at different sizes it still shows a clear sharp line. Why? Because the program that draws the picture to the screen is simply drawing a line, not enlarging the picture of a line as above (Fig. 1).

Each system has its advantages. Bitmap pictures, the first type discussed, can be changed down at the dot level. This makes it possible to create detailed images of textures from a wood grain to a skin tone.

Figure 2, a bitmapped picture created with a drawing program such as *Deluxe Paint*.



on the Amiga...

Structured drawings are very easy to edit and do not get distorted when enlarged or reduced. The two pictures of W.C. Fields show the contrast between the two types of drawings (Fig. 2 & 3). The bitmap picture looks like a photo of person, while the structured drawing looks more like a cartoon. While the structured illustration could be more lifelike, it will always be recognizable as a structured drawing.

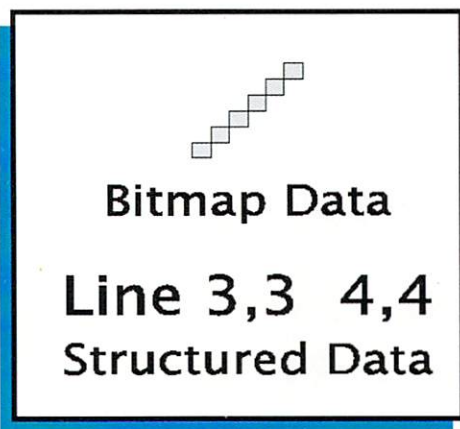


Figure 1.

Paper and Paint

A real-life analogy would be the difference between painting objects and cutting them out of paper. When you paint a square on a canvas, the only way to "move" that square is to repaint what was underneath the square and then repaint the square somewhere else. By comparison, with each square on a piece of paper you can move it around, move it forward and back, crumple it up and draw it over at a different size, all without affecting any of the other objects in the drawing.



Structured drawings are a lot like mechanical or engineering drawings. Every part of the drawing is precisely defined in terms of a straight line or a curve. In the case of most drawings, the curves used are bezier curves. When using a structured drawing program, you will find many of the tools to be similar to those in painting programs. Boxes, circles, lines, and curves are drawn in similar ways. But the difference between the programs really comes in editing the object after it is drawn. When you paint a box, it becomes part of the overall image and only by editing the entire image can the box be changed. With a structured drawing program each object exists by itself, and then is stacked up to form the image.

Curve Ahead

After you understand the differences between a program like Deluxe Paint and a structured drawing program like Art Expression, you can see how the tools compare. As mentioned above, most programs of both

Every part
of a
structured
drawing
is precisely
defined
in terms of
a
straight line
or
a curve.

Figure 3, a picture created with a structured drawing program.

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types have a common set of tools that work the same. What is really different is the way curves work. The curves used in most drawing programs are bezier curves. I know that to the average non-mathematician one curve is the same as all the rest, but this curve is really different. Let's take a look at how they are drawn. A bezier curve needs four points defined, two anchor points that mark the start and end of the curve, and two control points that shape how the curve is drawn (Fig. 4).

The drawing program starts at the first anchor point, and draws an imaginary line to the first control point. The curve will start out along this line, but will bend away (in most cases) before reaching the first control point. The control points are like magnets that pull the curve to them. The second control point pulls the curve toward it until it is on the imaginary line that is drawn between the final anchor point and the second control point. Because the order of the points—anchor 1, control 1, control 2, anchor 2—is so important, just changing the order of the two control points can dramatically change the curve. Figure 5 shows some of the curves that can be created just by moving the control and anchor points around.

Another consideration with curves is how they connect to other curves and lines. This is known as continuity. When the second control point and last anchor point of one curve lies on the same line as the first anchor point and control point of the next curve, the line is said to make a smooth transition. In the cases where this is not so you can end up with what appears to be a "kink" in the overall curve at that point. Of course sometimes, as with a corner, you want this kind of sharp transition. Generally though, a smooth transition is preferred; in fact this is the default option in *Professional Page*.

Prehistoric Morphing

Okay, you understand how a structured drawing program works, and some of the ways it can go beyond a painting program, but what about all those neat special effects? Well, one of the neatest is the focus of our project, called blending. Blending has been with structured drawing programs for a long time. I mention this because this is the same feature that many programs like commercials and rock videos are touting as "morphing." That's the feature where one picture melts into another magically. The problem is more complex with painted pictures than with drawn pictures, but basically it involves changing each copy of the object a little bit more to look like the final object. In the case of our project we will be changing an "S" into a swan, so let's start.

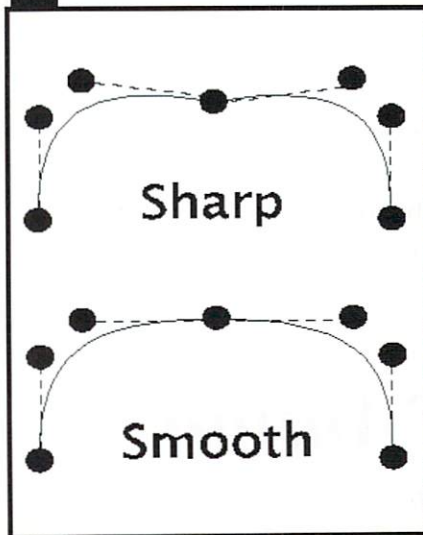
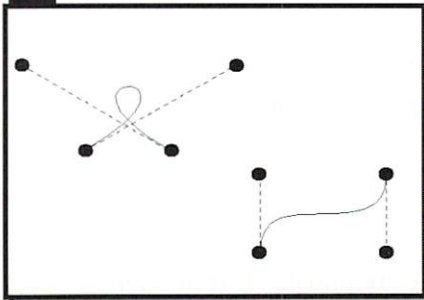
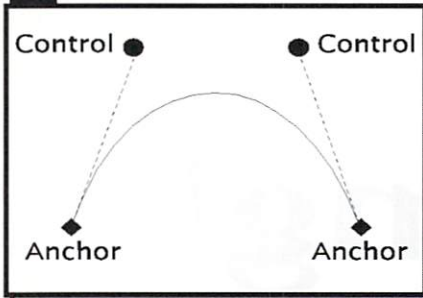
In the Beginning

The reason we are doing this project first, as opposed to typing our name or drawing a box is twofold: 1) Those are boring projects, and 2) This is a really easy project, but only if you know the trick.

To start with, fire up your favorite structured drawing program. The examples in this article are done with ArtExpression from Soft-Logik, but any of the programs with a blend feature will do just as well. Zoom in so that the view is actual size. Use the text feature of the program to draw two separate capital "S" characters, and convert them to graphics. Make each one about 144 points or about two inches tall. Place the first character in the upper left hand corner. Place the second "S" in the lower right hand corner. It doesn't matter exactly where you place them at this point, but for a cleaner look you may want to turn on the grid snap to aid placement.

Zoom in on the "S" in the lower right hand corner. This will be our swan. Still kind of looks like an "S" doesn't it? Well that's the secret to this project. Blending, like morphing, depends on the fact that there will be a one-to-one correspondence between the points and paths that are being changed. This way the program can divide up the total change between the two objects and divide it out among the objects in between. The mistake so many people make is trying to blend together two distinctly different objects. This leads to some *very* screwy results. A better approach is to take the more complex end of the blend, duplicate it, and form it into the simpler shape. In our case we start with a copy of the "S" and form it into the swan.

Enter point edit mode, and click on the "S" to reveal its control handles. For this stage of the project it is very helpful to set the grid very tight like .0625" in both directions. The first step is to flatten out the base of the "S" to simulate the swan floating on water. This is done by pulling the end of the character down to the grid line and pulling the bottom of the curve up to the grid line. Next we need to give the swan a body. This is done by first pushing the flat part at the end of the character together. At that part of its body, the swan does not have any sharp edges. Take the inside of the



Above, Figures 4, 5, & 6 are different example of curves in a structured drawing program.

bottom curve, which currently curves down, and pull it so that it curves up. Use the remnants of the bottom outside curve to give the swan a smooth backside. Figure 7 shows the swan shape in progress at this stage.

The middle curve of the "S" already has the basic shape of the swan's neck, but it's much too thick. We can thin it out by moving the right side of the curve towards the left side. We don't need to move both sides, so save the effort. As you move curves you may find that the lines no longer have the smooth contours of the "S", and in fact looked quite pinched in places. The problem is that the continuity between the curves has been lost. But just as we talked about before, it is easy to get a smooth curve transition again. Simply move the control points so that the control points on either side of the connecting point are on the same line with each other. Remember though, in some places, like the back of the swan at the base of the neck, sharp transitions are desirable.

The last part of the swan is the head. This time we can use the edge of the "S" to make the beak of the swan. Bring the top and bottom part of the straight line closer together and pull it out to the right. Pull the inside top curve down and in while keeping the top curve pretty much the same as it is. Viola? Take a step back and look at your swan, not bad really. Frankly this is far better than I could manage in a paint program, and I see that as a major advantage to drawing programs. They are great for creating objects that are derivative of other objects.

The Melting Pot

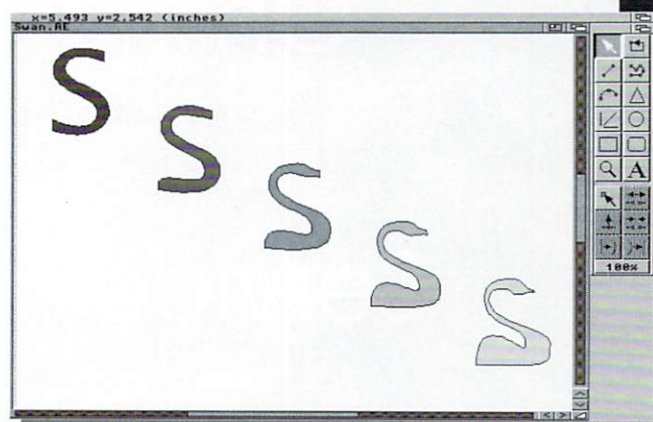
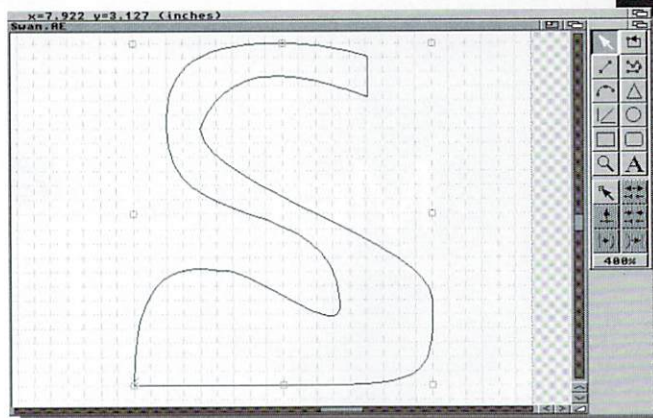
Now that we have our swan we zoom back out to actual size. Figure 8 shows the objects ready to be blended. But wait, we want to blend a red "S" to a pink swan. This is another feature of blending, color blending. In fact many times the blending function is used strictly to create steady progressions from one color to another. To change the colors we use the fill color requester to set the "S" to red and to define a shade of pink for the swan. We can use either RGB setting to define the pink color, or CMYK. In this case RGB is enough and we define it as 100% red, 75% green, and 75% blue.

Now that the colors and the shapes are ready we blend them together. Select both objects and select blend from the menu. When asked for the number of steps, we say five, including the starting and ending objects. This means the program will create three steps in between, with varying shapes and colors. Figure 9 shows the end result of the blend. While each object looks different, the changes are subtle and it is hard to see what changed between any two shapes next to each other.

In the future we will take on a more involved project and look into some of the other special features of structured drawing programs, like shapes with holes in them, advanced color control and text placement.

•AC•

Please Write to:
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Above, Figures 7, 8, & 9.

Searching Medical Literature Through Online Services

Michael Tobin, M.D., Ph.D.

Using the Amiga to tap

The Setting

Suppose you are a physician who needs some specific information in order to treat a patient with an unusual medical condition. You could drive over to the hospital and begin a manual literature search, a time-consuming process at best.

There are thousands of medical journals published worldwide each year and it would be impossible to thumb through the index of each.

Enter the Age of the Computer

In this day and age, there are extensive databases of information in practically every sphere of human knowledge and medicine is no exception. Often these are stored on CD ROM but their lease or purchase, at present, usually makes more sense for libraries than for individuals. Most of us might find it more cost-effective to use someone else's database collection and pay them for access time.

Probably the easiest solution is to request your librarian to access the Elhill computer at the National Library of Medicine (NLM) and conduct a MEDLINE search. MEDLINE is an electronic database of abstracts from some 3,600 medical journals of the 20–25,000 medical publications that the NLM receives. Together, you and the librarian will develop a search strategy based on appropriate key words. It is important to be present during the MEDLINE search because you may find that you need to modify your choice of key words in order to expand or narrow your search.

Not every hospital library has the required computer facilities; those that do may not allow you to be present during the search, which, in turn, could result in a set of references that are of limited use. Also, when the regular librarian goes on vacation, the remaining personnel may not know how to use the computer system. To do a MEDLINE search directly, one needs to know a special command language. Although it is certainly possible to learn this language or take a course sponsored by the National Library of Medicine, many of us would not want to if the frequency of our literature searches didn't justify it. Fortunately, there are other ways of approaching the problem.

On-line Telecommunications Services

Some major telecommunications services, such as CompuServe, will allow a user access to various professional databases. The Amiga with a modem and telecommunication software will do fine. On CompuServe, one can access MEDLINE by typing GO PAPERCHASE at the main menu and following the instructions. In addition to hourly CompuServe charges, there is a PaperChase surcharge of \$24 per connect hour prime time and \$18 non-prime time. Photocopies of references can be ordered on-line at \$10 per copy first class delivery or \$25 for express mail or fax. Additional fees may apply, for instance, for manuscripts longer than 25 pages.

Interestingly, with CompuServe, MEDLINE searches are not carried out at the Elhill computer at the National Library of Medicine, but rather on the computer system at PaperChase, which is affiliated with Beth Israel Hospital in Boston, Massachusetts, and which leases medical databases from the National Library.

Getting medical information via a national telecommunications service is incredibly easy and convenient although one still needs to think of key words, and one's thinking and typing time are charged

the vast resources of medical on-line services.

accordingly. If your literature searches are relatively infrequent and you already are a member of CompuServe—and many Amiga users are—you may find this route to immediate information to be just what the doctor has ordered.

Becoming more Direct

Having the most current information at your fingertips can be an addicting experience and you may easily find yourself consulting databases more and more frequently. You may soon decide to avoid paying the middle man and subscribe to PaperChase directly. The user interface and accessible medical databases (MEDLINE and HEALTH) are the same as for CompuServe users, so that knowledge of commands and search strategy are immediately applicable. The Amiga with modem and software should be adequate here as well.

When you contact PaperChase (1-800-722-2075), they will send you a packet filled with useful information about their databases, how to perform a search, and the charges you can expect to pay. You can use CrossPC (Consultron) on your Amiga to run their complimentary 720K IBM diskette which contains a demonstration of a typical search.

The charge per connect hour is a uniform \$23 regardless of the time of day. Although photocopy charges are the same, there is an additional series of charges not applied to CompuServe users, for instance, 10¢ per reference or abstract displayed or printed. I could easily envision these charges mounting up depending on the specific search. However, there are no "start-up" or monthly fees.

The support person at PaperChase felt that the various charges balanced each other and that there was no substantial difference in overall cost between accessing PaperChase directly and indirect access through Compuserve. Special plans are available to academic centers. PaperChase plans to include other databases such as CANCERLIT and AIDSLINE in the near future that will be available to all users.

Commercial Alternatives

Users of PaperChase are basically limited to the MEDLINE and HEALTH databases because these are the ones that PaperChase leases from the National Library of Medicine. Commercial alternatives such as BRS Information Technologies can be quite competitive by offering access to a very large number of databases in medicine, science, finance, business, education, and the humanities, to name a few. Entire textbooks and journals are available on line. If you like to keep up with a certain area or topic, BRS offers a service whereby you can store your search strategy. Then each time the database is updated, the computer will automatically run your search and mail you the new references it finds!

None of this comes cheaply. Individuals pay a one-time \$95 registration fee and there is a \$20 monthly minimum applied against usage. There is a variety of additional charges, such as for on-line SORT-ing (\$1) and SAVE-ing (\$2.25). Connect time charges vary according to database and range from \$22/hr non-prime time for MEDLINE to \$100/hr. prime time for CURRENT CONTENTS:





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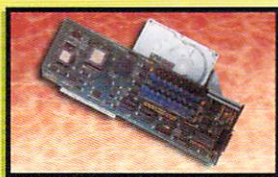
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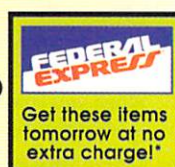


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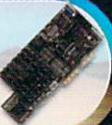
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As with Compuserve, the Amiga can be used to connect to these services.

Becoming Really Direct

As you see the impact of knowing the latest information, you may want to access the National Library of Medicine (NLM) and its many databases directly. While a modem-equipped Amiga can easily establish contact with the NLM, the problem, as I mentioned, is the need to learn the search routine and associated commands required to use MEDLINE, which has no simple user interface. The NLM has made searching easier by providing at \$29.95 interfacing software called, amusingly enough, *Grateful Med*. What is not so amusing is that this software is available only on IBM and Macintosh formats.

Using Grateful Med on the Amiga (Macintosh Emulation)

Grateful Med will run on an Amiga equipped with AMAXII+ (ReadySoft), which consists of AMAX 2.5 software and an internal board that when fitted with Macintosh 128K ROMs will allow an Amiga to emulate a Mac Plus. The board has an external serial port connector to which a 2400-baud Supra modem with a standard Mac serial cable can be attached.

With Grateful Med, you compose your search (keywords, medical sub-headings, etc.) off-line so that when the software rings up the NLM, you will only be charged for the search itself. If you want to order a reprint, you have to run a separate program called *Loansome Doc* which requires a separate (automatic) phone call—a procedure that you may find inconvenient.

Learning to use Grateful Med is facilitated by the complimentary demo disk provided by the NLM. The easy-to-follow manual included with the software is an excellent long-term reference. Finally, the program itself contains a certain amount of on-line help. The NLM support staff is excellent and they will be delighted to answer any questions that still remain (1-800-638-8480).

The bottom line is that Grateful Med 1.5 and the AMAX+ system work together spectacularly and I have now run several successful searches, one of which, I am told, provided information

that may have saved a patient's life. There are several additional points regarding both AMAX and Grateful Med that some readers may find helpful.

1. My hardware setup involved installation of the AMAX board in an Amiga 2000 having a GVP 68030 combo card and a total of 4MB regular (auto-config) and 6MB expansion memory. Even with this unusual set-up, I had no problems with the AMAX internal card/software combination!

2. If you are using a GVP accelerator/memory expansion combo card, you will need the latest GVP AMAX driver that regrettably is *not* supplied on the AMAX disk but can be obtained from the GVP bulletin board or, I presume, by calling GVP.

3. All Mac software, which I ran under System 6.05, resided on a partition of a Syquest 88MB removable disk which it shared with a

The screens denote interfaces as seen through the AMAX II emulator board running in an Amiga 2000.

normal Amiga partition. The GVP FaastPrep program was used to format and partition the disk.

4. Installing Grateful Med 1.5 on the Mac simply involves dragging icons into a drawer. To access the databases at the NLM, you will have to apply for a user I.D. and a password which basically involves telling the NLM how you intend to pay for their services. You will also need a local Tymenet or Sprintnet telephone number but this you can look up in the booklet supplied by the NLM with your software.

5. Grateful Med does insist on initializing your modem and this can cause difficulty. If you are having problems with your modem not re-setting or with total gibberish coming through after you connect to the Elhill (NLM) computer, the problem may be with the default initialization sequence. If you do need to alter the initialization string, you can use the Mac TeachText program to modify the BLOGIN file, which contains the Hayes commands. The excellent support staff at the National Library will help you.

6. Using the latest AMAX 2.5 software with the 128K ROMs on an external cartridge rather than on an internal board does *not* work for Grateful Med or any other telecommunications program that

computer realizes that you are there, especially when you log on to PDQ for the first time.

Using Grateful Med on the Amiga (IBM Emulation)

The Grateful Med IBM version (6.0) is currently an upgrade ahead of the Mac version. I was able to run the IBM Grateful Med version on an old Amiga 2000 with 1.3 system software, an XT bridgeboard (Commodore 2088), and the 1.0 version of the Janus software. I have an AST Six Pack multi-function board in this computer that increases the IBM memory from 512K to 640K RAM and provides both a clock and a serial port. To this port, I connected my old 2400-baud Supra modem.

Installing the the IBM Grateful Med software was a breeze. The program will create for you a (default) directory called GM6 that will now contain everything you need. When you change directory (CD) to GM6, you can run Grateful Med by typing SEARCH (RETURN). You can easily navigate your way around the program by the up and down arrows on the Amiga keypad. The AST serial port works flawlessly and there was no difficulty at all dialing the NLM computer system and running a search. Naturally, you still

Once you get "hooked" on electronic databases and experience the impact the information in them can have on patient care, you may very well decide to explore a commercial service such as Dialog or BRS.

tries to address the Amiga serial port as a Mac serial port. I have verified this on both my Amiga 2000 (Workbench 2.0) and my 3000 systems.

Interestingly, I was able to get Grateful Med, as well as other telecommunications programs, to work with the external cartridge on an old Amiga 2000 (Workbench 1.3) using the old AMAX 2.0 software. Therefore, I would recommend to Workbench 1.3 users who have problems getting Grateful Med to work with the AMAX external cartridge to try using the old AMAX software.

7. I do not own the Emplant Board (Utilities Unlimited) so that I cannot comment about its suitability for running Grateful Med.

8. I had a problem connecting with PDQ, which is a database containing cancer-related information. Grateful Med is able to connect to PDQ but then waits endlessly until you are finally logged off the system. Fortunately, the PDQ interface is extraordinarily friendly so that, unlike MEDLINE, no special interface software is required to use it! I have used both Mac and Amiga telecommunications software to dial my local Sprintnet access number—the same as used for Grateful Med—and log on to the National Library of Medicine and then connect to PDQ. The NLM provides specific written information on what to do. If all else fails, the NLM support line is available. You can get your PDQ password from them at the same time. Also, be prepared to wait a minute or two before the

need a local access telephone number from Sprintnet or Tymenet in addition to your I.D. and password. Searching the literature is the same as for the Mac version of the program, but the software gives you more information about what is happening.

I did hope that it would be possible to run Grateful Med using CrossPC (Consultron). Unfortunately, Grateful Med was unable to use the Amiga serial port and the modem connected to it. Other PC telecommunications programs were able to use the Amiga serial port and the modem so that I feel confident that the problem is not with CrossPc.

Conclusion

There is a variety of choices available for literature searching on the Amiga, some of these made possible only by the IBM and Mac hardware emulations that are available. I don't think you can go far wrong whatever choice you make.

The most cost-effective approach is probably to have the librarian do the search and have your organization cover the cost. If you can be physically present during the search, you can be reasonably sure of getting some useful references. Realistically, the librarian may be too busy to run your search at a moment's notice and you may not be available when he or she actually does.

(continued on page 89)

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A

Simple Backup & Restore Program in ARexx

Everett M. Greene

WHEN DEVELOPING PROGRAMS or otherwise continually producing revisions to AmigaDOS files, one is often interested in performing a simple, incremental backup of revised files. Typically, the backup is done to a floppy disk but it could be done to a second drive, magnetic tape, or whatever else one may have at hand. Rather than having to resort to a full-capability backup/restore utility program (MRBackup, for instance), it is convenient to be able to have a simple process for performing what may be considered to be a specialized backup.

The ARexx program shown in the listing performs such a backup. It expects to find a path name as its sole parameter and will check all files common to both the path and the current directory. Any file found on the path with a date earlier than the corresponding file in the current directory will be updated by copying the file in the current directory to the backup path. Note that any file not already present in the backup path directory will not be updated.

The bulk of the code deals with getting the file names and their dates into a common, easily-processed form. The file names with dates from each directory are written to a temporary file that is sorted to get the names in ascending alphabetical order. Both sorted files are then read as two lists until matching entries are found. As matching entries are found, if any, the dates of the files are compared; if the file in the current directory is newer than the corresponding file in the backup path, the file from the current directory is copied to the backup path. Both lists are advanced to the next file and the cycle is repeated until the end of one or both files is reached. Upon completion of the processing, both temporary files are closed and deleted.

Some points of interest regarding the code:

- The *address command statement* is required so that ARexx will look in the correct place for the AmigaDOS *list*, *sort*, and *copy* commands. This critical requirement is omitted from the ARexx documentation.

- The first few statements ensure that a backup path parameter is passed to the program and that it represents a valid AmigaDOS directory.
- *Quick*, *dates*, *files*, and *nohead* options are used on the commands so as to forego having unnecessary information in the temporary files.
- The order of the *read* and *eof* check may seem unusual, but ARexx doesn't have a valid status until after the *read* operation is attempted, an undocumented ARexx characteristic.
- The file names read from the temporary files are converted to all upper-case characters for comparison purposes so as to conform to the AmigaDOS convention of file names not being case-sensitive. ARexx does not provide a case-insensitive string comparison capability. *File_name1* is kept in its original mixed-case form for use in the *copy* operation.
- The *copy* command uses the *clone* option so as to maintain the date of the file on the backup path. Otherwise, the backup process doesn't work so well the next time.
- The ">nil:" appended to the *delete* commands eliminates the message about the otherwise anonymous file having been deleted.



- The procedure *date_value* converts the list command's system date form to an AYYYYMMDDHHMMSS form. The letter 'A' prepended to the date and time string is an arbitrary choice of character but is necessary to preclude ARexx from converting an otherwise all-numeric string to a floating-point binary form; a floating-point value has about seven digits precision which is insufficient range to accurately represent the 14-digit date and time value.

- The initialization statements for the *month* array (*month.n = '...'*) show the values as all upper case. This is necessary due to ARexx passing string arguments, line in this case, as all upper case, another undocumented "feature."

- It would be better if the *month* array initialization were done in the main part of the program and then exported to *date_value*. However, the version of ARexx supplied with AmigaDOS 2.1 seems to be incapable of finding *month* if *month*'s initialization is moved to the beginning of the program.

- The procedures *next_file1* and *next_file2* could be merged into one routine except that ARexx parameters are passed by value and a function procedure can return only one value. The pass-by-value mechanism means that arguments are effectively limited to being inputs to procedures. Therefore, a merged *next_file* procedure cannot return both the file name and the date and time string.

- The process of extracting the file name from the *list* command's output uses all but the last 18 characters of the line as the file name. Although the date and time part of the lines is always exactly 18 characters, the first part of the lines will vary as a function of the length of the file names. The process shown will handle the variation in length.

The Listing

```
save.rexx      Wed Feb 17 09:42:23 1993      Page 1
1:  /* Program to perform selective backup      2/15/93
*/
2:
3:  address command
4:
5:  if arg() < 1 then do
6:    say 'USAGE: SAVE backup_path/S'
7:    exit(20)
8:  end
9:
10: backup_path = arg(1)
11:
12: if -exists(backup_path) then do
13:   say backup_path 'is an invalid path'
14:   exit(20)
15: end
16:
17: 'list quick dates nohead files to t:file_list3.tmp'
18: 'sort t:file_list3.tmp t:file_list1.tmp'
19: 'list' backup_path 'quick dates nohead files' ,
20:   'to:t:file_list3.tmp'
21: 'sort t:file_list3.tmp t:file_list2.tmp'
22:
23: if open(f1,'t:file_list1.tmp','read') & ,
24:   open(f2,'t:file_list2.tmp','read') then do
25:   call next_file2
26:   call next_file1
27:   do while -eof(f2) & -eof(f1)
28:     do while (upper(file_name1) == file_name2) & ,
29:       -eof(f1) & -eof(f2)
30:       /* synchronize the two lists, if possible      */
```

```
31:     do while (upper(file_name1) < file_name2) & -eof(f1)
32:       /* current directory is behind backup path      */
33:       call next_file1
34:     end
35:     do while (file_name2 < upper(file_name1)) & -eof(f2)
36:       /* backup path is behind current directory      */
37:       call next_file2
38:     end
39:   end
40:   if (upper(file_name1) == file_name2) then do
41:     /* we have a name match between the two lists      */
42:     if d1 > d2 then do /* need update?      */
43:       say 'Updating' file_name1 /* Let's do it!      */
44:       'copy' file_name1 backup_path 'clone'
45:     end
46:     call next_file1
47:     call next_file2
48:   end
49: end
50: end
```

save.rexx Wed Feb 17 09:42:24 1993 Page 2

```
52: x = close(f2)
53: x = close(f1)
54: 'delete t:file_list3.tmp >nil:'
55: 'delete t:file_list2.tmp >nil:'
56: 'delete t:file_list1.tmp >nil:'
57: exit
58:
59: next_file1: procedure expose f1 file_name1 d1
60:   line = readln(f1)
61:   if -eof(f1) then do
62:     file_name1 = strip(left(line,length(line)-18))
63:     d1 = date_value(line)
64:   end
65:   return
66:
67: next_file2: procedure expose f2 file_name2 d2
68:   line = readln(f2)
69:   if -eof(f2) then do
70:     file_name2 = upper(strip(left(line,length(line)-18)))
71:     d2 = date_value(line)
72:   end
73:   return
74:
75: date_value: procedure
76:   arg line
77:   month.1 = 'JAN'; month.2 = 'FEB'; month.3 = 'MAR'
78:   month.4 = 'APR'; month.5 = 'MAY'; month.6 = 'JUN'
79:   month.7 = 'JUL'; month.8 = 'AUG'; month.9 = 'SEP'
80:   month.10 = 'OCT'; month.11 = 'NOV'; month.12 = 'DEC'
81:
82:   file_date = right(line,18) /* 'DD-MMM-YYbHH:MM:SS'
*/
83:   year = substr(file_date,8,2)
84:   if year >= 72 then
85:     year = 'A19' || year /* 'A19YY'      */
86:   else
87:     year = 'A20' || year /* 'A20YY'      */
88:
89:   mon = substr(file_date,4,3) /* convert MMM form */
90:   do m = 1 to 12 /* to numeric [1..12] */
91:     if (month.m == mon) then
92:       break
93:   end
94:   if m < 10 then
95:     d = year || '0' || m /* 'AYYY0M'      */
96:   else
97:     d = year || m /* 'AYYYMM'      */
98:
99:   d = d || substr(file_date,1,2) /* 'AYYYMMDD'      */
100:   /* remove ':' from time
*/
100:   return d || compress(right(file_date,8),':')
```

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Doin' it with CanDo!

Programming with *CanDo* is a fast and easy way to create commercial-quality programs. Using a set of simple programming strategies, you can develop applications faster and with less hustle than ever before.

CanDo programs are called decks and consists of one or more cards. (See Fig.1) Each card opens one window, either on its own screen or on the Workbench screen. There is a third option; a card can open a window on a screen belonging to a card in another deck, thus allowing multiple windows on a screen. To each card, a number of objects can be easily attached. The most common object types are Buttons, Menus, Text Fields and Lists. There are also several other object types, such as Timers and AREXX-objects. One or more scripts can be linked to each object. A script is run when the object is triggered by a certain event. If you have created a Button object, you could for instance attach a script that will be executed when the button is pressed. Another script could be run when the button is released again, and a third if the button is double-clicked.

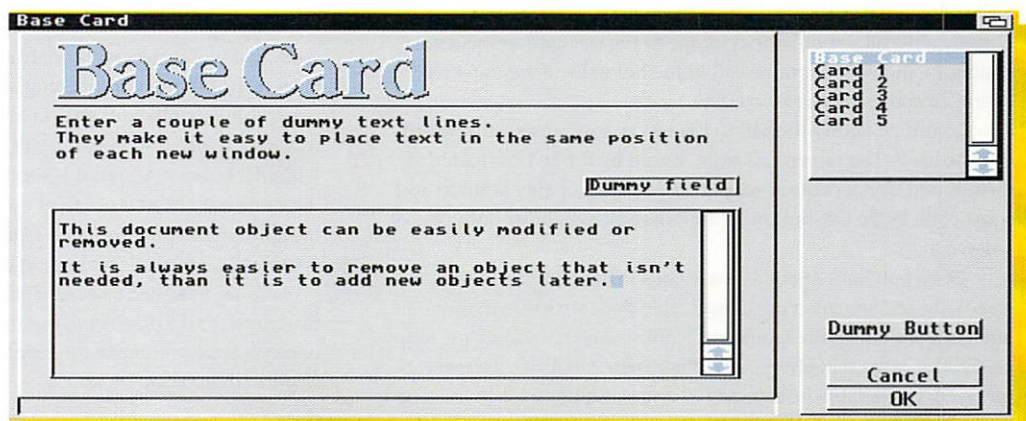
Even complex programs can be split up into small separate segments that are easy to write and debug. The *CanDo* scripting language is very powerful and allows easy manipulation of databases, has C-type structured variables and uses arrays that are extremely flexible.

First Base

It is very important that all cards in a deck have a consistent user interface. Objects that do the same thing on different cards should always look alike, behave the same way and have the same position on the screen. The easiest way to accomplish this is by creating a base card, a template with the features common to all of the cards in the deck. Each time you create a new card, you do it by making a copy of the base card. When the application is complete, the base card is deleted.

A card can open a window with an IFF-picture as a background, but this wastes memory. I prefer to set the screen size and number of colors for the card instead, and use *CanDo*'s built in structured drawing commands to draw beveled boxes and other features of the screen. This can be done in a card's *AfterAttachment* script, a script that is automatically run when an application jumps to the card. The drawback is that the window is opened on the screen first, then objects are attached and the script is run. This may cause an unpleasant effect as objects are visibly drawn on the screen and your own scripting commands are executed. The solution is to open new screens behind all other screens (including the Workbench screen). You can then draw

Figure 1. Each card in a deck opens a window, either on its own screen or on the Workbench.



Smart Cards & Other Neat *CanDo* Programming Tricks

by Henrik Mårtensson

whatever you want and finish with a 'ScreenTo FRONT' command in the *AfterAttachment* script.

It's best if you use the *AfterAttachment* script to call a global subroutine that performs the actual commands. (See Listing 1a and 1b.) That way you save memory, but more important, you can make changes to the initialization of all cards by changing a single script.

It is a good idea to put a dummy 'PrintText' command in the *AfterAttachment* script to create a reference point for text, graphics and visible objects you may wish to add to the cards.

When the routines are written, add buttons and other objects. Let the objects call routines as much as possible. This will save you a lot of grief if you have to make changes to the scripts later.

When the base card is finished, save the deck. Then use the *ConfigCanDo* editor to set the base card deck as the default deck. That way the base card will always load automatically when you start *CanDo*.

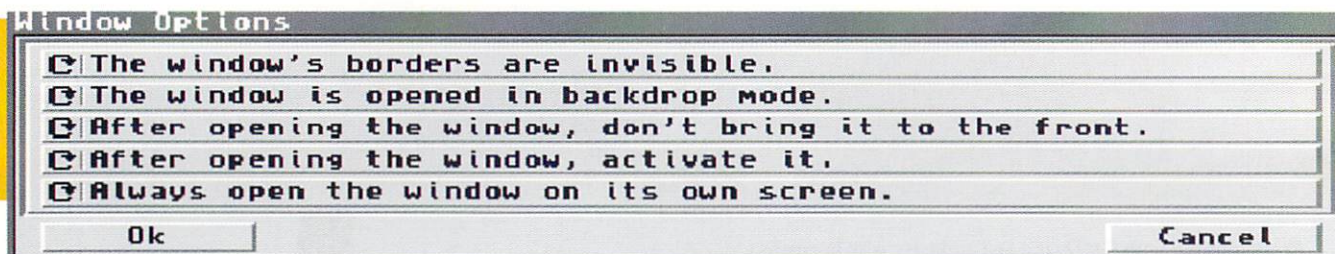


Figure 2

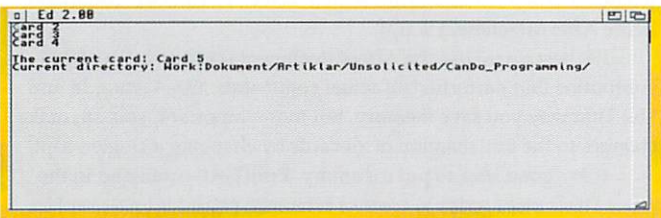
Smart Cards

Figure 1 shows the natural organization of a CanDo-deck. All that's needed to jump from one card to the next is a button with a 'NextCard' command in its Release script on each card. A button with a 'PreviousCard' command lets you to go through the cards in reverse order. This linear structure may be good enough for some presentation-type decks, but it is far from always flexible enough.

Many programs use a star structure, like the one shown in Figure 2. From a main card, other cards may be called. If need be, linear structures may be added so that a card may call other cards in its turn. Though this structure is often useful, it's still a bit inflexible, requiring you to move through a central hub on your way from one card to another.

Figure 3 shows the most flexible structure. In this random access structure, every card may be called from every other card in the deck. The trouble is, it looks like it is a mess to program. Imagine how this plate of spaghetti would look with twenty or thirty cards.

How do we track the user's movements through a complex card structure so that we never have to worry about returning to the right card? Can we make the system flexible enough to handle any structure?



We Need Smart Cards!

Every card must be able to find its own way back to the card it was called from when the user clicks an OK or Cancel button. The system should also be automatic, so that the OK and Cancel scripts never have to be rewritten to fit a new card.

In C, we could use linked data structures for this. With CanDo it can be done even easier by using a Document data object. Using the BeforeDetachment script, each card can call a sub-routine that writes the name of the card into a Document. The OK and Cancel buttons will call a routine that jumps to the last card in the list. Listing 2a shows the routine call in the BeforeDetachment script and listing 2b shows the actual routine.

2c and 2d shows the call to the return routine and the return routine itself. The return call in 2c should be the last command in the OK and Cancel button scripts. (You will probably want to add some code in the OK button script to handle whatever data you've entered.)

Once you have created a base card using these routines, you can easily implement every conceivable deck structure by just attaching buttons with 'GotoCard' commands in their scripts to the cards. The cards will always find their own way back. To make all other cards available from a card, it's sometimes easier to use a List

object instead, since there may not be room for all of the buttons. (See Pic. 1 and Listings 1b and 4.)

There is one potential hazard with this random access scheme. If the user always exits a card by jumping directly to a new card instead of clicking OK or Cancel, the Document will eventually grow very long. This won't happen in most applications, since you will rarely wish to fully implement the random access structure. Most applications use a star structure in combination with one or more attached linear structures. In case you're worried about using too much memory, just check the number of lines and start deleting them off the top of the Document if it grows too long.

Ed To The Rescue

Developing software with CanDo, I finally found a use for Ed, the AmigaDOS editor. Ed may well be the second worst editor ever written for the Amiga, (Edit is worse!) but it has two redeeming features.

First of all, it has an ARexx interface! (Under Workbench 2.0 and later.) Second, it's available everywhere.

Through the ARexx interface, we can easily get Ed to give us information about the status of certain variables in a deck.

Listing 3 shows a routine that starts Ed, if it's not already running, writes information to a file, and uses ARexx to get Ed to read the file. A call to this routine could be placed in the card initialization routine. (See Listing 1b.) Every card you create from then on will automatically update the information in Ed.

A Few Pointers

That's pretty much it! Of course, if you are serious about writing programs with CanDo, there are a number of other programming tricks and tips that help.

Sooner or later you are going to want to use multiple windows in an application. To do this you will have to use multiple decks and this in turn requires a standard for deck communication. It is very tempting to just cobble something together. Don't! Use a flexible standard, like the one in the CanDo manual, and stick to it! While it may require a little effort to get your head around it, if you're not used to this sort of thing, it is well worth the effort. I've cheated upon occasion, and always regretted it.

C-programmers will appreciate CanDo's record variables. They work just like structured variables in C. Whatever language you've been using before, you're going to love the arrays. They are incredibly flexible. You should also learn to use the CanDo Alias() function. It allows you to declare a variable as a pointer to another variable. Learn it, use it! It is especially useful if you need to access the same data from more than one deck running at the same time. Last, but not least, if you don't learn to utilize the CanDo database commands, you are missing out on a lot!

Using these techniques won't ensure that you write good programs, that's up to you, but they will help creating a consistent user interface and make development and debugging faster and easier. You too CanDo it!

Card 2
Card 3
Card 4

The current card: Card 5
Current directory: Work:Dokument/Artiklar/Unsolicited/CanDo_Programming/

Figure 3

Listings for the CanDo Base Card
(With Smart Card and Debugging Support)

Listing 1a: AfterAttachment-script

```
Nop ; *** First we do stuff that may be different ***
Nop ; *** for each card. ***
SetPrintFont "topaz",8
SetPrintStyle PLAIN ,2,3
SetPen 1,0
SetDrawMode JAM1
PrintText "Enter a couple of dummy text lines.",30,65
PrintText "They make it easy to place text in the same position",30,75
PrintText "of each new window.",30,85
Nop ; *** Here we call the global initialization ***
Nop ; *** routine. ***
Nop ; *** The argument "CardName" could be replaced ***
Nop ; *** with whatever text string we want to ***
Nop ; *** display. ***
Do "Initialize Card",CardName
```

Listing 1b: Global routine "Initialize Card"

```
Nop ; *** Arg1 is the title of the card. ***
Nop ; *** This creates the general layout of the cards ***
DrawBorder 504,12,135,186,BEVEL ,6,1
DrawBorder 6,12,484,176,BEVEL ,6,1
DrawBorder 6,187,484,11,BEVEL ,1,6
SetPen 2
DrawLine 29,57,464,57
SetPen 1
DrawLine 29,58,464,58
SetPrintFont "times",24
SetPrintStyle EMBOSSED ,2,1
SetPen 3,0
SetDrawMode JAM1
PrintText Arg1,30,36
SetScreenTitle Arg1
Nop ; *** Unfortunately, we have to type in the list of ***
Nop ; *** cards ourselves. A card only knows its own ***
Nop ; *** name. Short of rifling through all of the cards ***
Nop ; *** once on startup, there is no way to find out ***
Nop ; *** the names of the other cards from inside an ***
Nop ; *** application. ***
MakeDocument "CardsInDeck"
Type "Base Card",NEWLINE ; Only during development
Type "Card 1",NEWLINE ; You must create card 1-5,
Type "Card 2",NEWLINE ; or there will be an error when
Type "Card 3",NEWLINE ; you try to select them from
Type "Card 4",NEWLINE ; the list.
Type "Card 5"
Nop ; *** Make sure the right line in the document is ***
Nop ; *** selected. Otherwise the user may get confused. ***
MoveCursorTo STARTOF DOCUMENT
SearchFor CardName
Nop ; *** We update the information in Ed here ***
Do "*** Update Ed"
Nop ; *****
ScreenTitleBar True
ScreenTo FRONT
```

Listing 2a: BeforeDetachment-script

Do "Save Return Card"

Listing 2b: Global routine "Save Return Card"

```
Local TempDocName
If SaveCard=ON ; *** Should we save this card? ***
Let TempDocName=DocumentName
WorkWithDocument "Return Cards"
```

```
MoveCursorTo END OF DOCUMENT
Type CardName,NEWLINE
If TempDocName<>" "
WorkWithDocument TempDocName
EndIf
```

```
EndIf
Let SaveCard=ON ; *** Make sure we save the next card ***
```

Listing 2c: OK button Release-script

Do "Return"

Listing 2d: Global routine "Return"

```
Local TempDocName
Local ReturnCard
Let SaveCard=OFF ; *** We don't want to save the card name ***
Nop ; *** when we use the OK or Cancel buttons ***
Nop ; *** to leave ***
Nop ; *** Make sure we don't mess up another document ***
Let TempDocName=DocumentName
WorkWithDocument "Return Cards"
MoveCursorTo END OF DOCUMENT
MoveCursor UP
Let ReturnCard=TheLine ; *** Get the name of the return card***
Delete LINE
If TempDocName<>" "
WorkWithDocument TempDocName ; *** Work with the ***
Nop ; *** previous document***
EndIf
If ReturnCard<>" "
GotoCard ReturnCard ; *** Jump to the previous card ***
Else
FirstCard ; *** If there are no more cards in the ***
Nop ; *** list, we go to the first card in ***
Nop ; *** the deck. ***
EndIf
```

Listing 3: Global routine "*** Update Ed"

```
Nop ; *** This is where we send debugging information to Ed ***
Nop ; *** First save a list of all return cards ***
SaveDocument "Return Cards","Ram:Return_Cards.txt"
Nop ; *** Now write some other information into the file ***
OpenFile "RAM:Return_Cards.txt","Debug",WRITEONLY ,APPEND
FileWriteLine "Debug",""
FileWriteLine "Debug","The current card:||||CardName
FileWriteLine "Debug","Current directory:||||TheCurrentDirectory
Close "Debug"
SpeakTo "Ed"
IfError ; *** If Ed isn't running, start it! ***
Nop ; *** Ed must be Run, or the script will hang. ***
Dos "Run >Nil: <Nil: C:Ed RAM:Return_Cards.txt"
Delay 0,3,0 ; *** Delay so that we see Ed start up ***
Else ; *** If Ed runs, tell it to read the file ***
SendMessage "OP /RAM:Return_Cards.txt/",ASYN
EndIf
```

Listing 4: List object "List of Cards" OnRelease-script

```
WorkWithDocument "CardsInDeck"
GotoCard TheLine
```

•AC•

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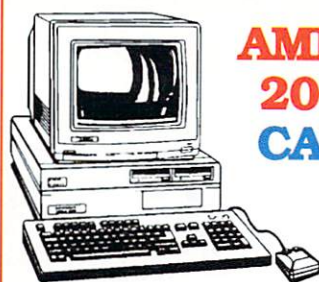
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c r o s s



PENNEY **Pincher's**

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development

s y s t e m

Not long ago, intrigued by ads in *Amazing Computing* offering a new version of *True BASIC* for only \$15, I sent off a check to the address in the ad. I didn't expect much, not at that price, but hoped at least that the program, unlike *AmigaBASIC*, would run on my A3000 without a hassle.

The package didn't look promising. No box, just a shrink-wrapped manual, rather ominously named the "Student Edition," with a single disk in the back. But, once I got everything unpacked, was I ever surprised! The compressed *True BASIC* install disk is crammed with extras. As for the manual, it gives such a good introduction to structured programming in BASIC that the book alone is worth the price of the package. Every programmer should invest in a copy.

First Program

Because I had done a little with AmigaBASIC back in the days of my A1000, I just sat down with the handy manual and tried hacking out a program using the True BASIC Editor. I knew I wouldn't be competing with the folks at Psygnosis now or in the future, so I decided to keep things simple and focus on an activity my three-year-old grandson might enjoy. Almost before I knew it, I had a working program, Block-n-Draw, that I knew he would like. I also had a problem: my grandson lives in a true-blue IBM household.

True BASIC is supposed to be almost totally portable, but I don't have a PC. I do have Consultron's software CrossPC—another bargain. Feeling that my copy of True BASIC had been worth far more than I spent on it, I decided to risk another \$15 on a copy of the Student Edition for MS-DOS.

MS-DOS students get fewer extras (no compression here), and their package is limited to saving relatively short files—but it did turn out to run under CrossPC. I decided to comment out a line in my code referring to an Amiga graphics mode and add one calling for the PC counterpart—not necessary, as I discovered later. With some trepidation, I chose “run” from the convenient pop-down menu. Abracadabra! A working PC program!—a working PC program with moving graphics and mouse input! Where else but on the Amiga? The big ticket item here is the MS-DOS required with CrossPC.

There's an invisible “eraser” at the top. Basically, it's like fingerpainting with a mouse, and appeals to preschool children, who like to explore things at their own pace and find just manipulating the mouse something of a challenge.

Now, if you have enough memory, leave the Amiga program running and boot up CrossPC, following the instructions in the manual. Dedicate as much memory as you can spare and use the <co80> mode. At the DOS prompt, type MOUSE.COM to turn on the mouse, switch into the True BASIC directory and type <hello>. After a slight delay—this is only an XT—you should be greeted by a two-window screen similar to the one you just left. It will look depressingly monochromatic, but you can make things as garish as you want by using the COLORS command described in the True BASIC manual.

You will find some frills in the editor, like a clock and a running update on the location of your cursor. The menus are fairly similar in both versions; on the PC side their titles remain visible. You can call up a function key template also.

You will have to get used to using a slightly balky one-button mouse and to popping down menus or highlighting text with the left button. The mouse operates well to make selections from lists in dialog boxes, but choices at the bottoms of gadgets are not always the convenient buttons Amiga users have grown to expect; use <Return>, <Esc> and other obvious keyboard selections to make selections and exit.

Load one of your typed-in listings. If it looks peculiar, you may have forgotten to include the <|> extension to enable the end-of-line-

To get your feet wet, start up True BASIC for the Amiga, enter the editing screen, type in BBuild.TRU, and save it.

Setting up the Cross-Development System

I don't have a MS-DOS partition on my hard drive, so I use a floppy for the MS-DOS Student Version. This tutorial assumes that you have everything stowed away on floppies or appropriate hard-drive partitions, depending on the setup of your system, and are using CrossPC for your bridge to MS-DOS.

Your CrossDOS PC drives become unavailable to the Amiga once you start the CrossPC. This means you cannot send files back and forth between the two systems while they are running. Therefore, you will want to do the bulk of your editing and debugging on the faster and more convenient Amiga system, saving completed programs to PC-formatted disks for testing.

To get your feet wet, start up True BASIC for Amiga, enter the editing screen, type in BBuild.TRU, and save it. When you run the listing, True BASIC will ruminate for a few seconds while it compiles, and then will draw a series of four simple geometric shapes to the center of the screen and save each one to disk. When the program quits, click to return to the editing screen and save your work again, this time to a PC-formatted disk, using the <|> extension as described in the CrossDOS manual. Do the same for BBuild, although you may wish to shorten this listing by leaving out some of the comments and white space; as printed it is just over the maximum length to be saved again by the MS-DOS Student Edition. Of course you don't have to be able to save it in MS-DOS.

When run, BDraw.TRU should reproduce the stored shapes along the lefthand edge of the screen and allow the user to pick them up like brushes and stamp them down here and there on the screen or, by holding down the left mouse button, draw with them.

character filter during translation to MS-DOS. You will have to exit CrossPC to remedy this error.

When you run the listings—by selecting <Run> from the Command Menu or by pressing <F9>—you will note some differences in how the two computers implement the same instructions. As you make your observations, press <LeftAmiga M> to flip back and forth between the PC and your Amiga.

Block-n-Draw is not as impressive on a CrossPC-XT as on the Amiga but this is not the fault of True BASIC; it results from the three-color limitation of CGA graphics. Anyone who has a system with a VGA card or equivalent should be able to enable a more Amiga-like result by specifying “VGA” mode. This is one of the real strengths of True BASIC; it handles all the screen conversions for you! If you call for an impossible screen mode the program will even choose a more appropriate one for you; this is why my Amiga listings will run on the PC even without changing the screen mode specification.

Actually, Cross-PC allows more than three colors on my Amiga, but True BASIC seems to know this shouldn't happen, so the extra colors you can get in the editor disappear as soon as you run a program. Because of this color limitation, the figures seem to shrink as outlines are added to the them.

Another peculiarity of the PC version on my CrossPC-XT is that the mouse operates idiosyncratically, controlling the shapes from a point well outside their perimeters. It is my understanding that Consultron is working on some problems with their CrossPC rodent-handler. The mouse also produced unexpected results in the editor from time to time.

One final difference in the way programs operate on the two systems is that True BASIC for the PC does not open a full-screen window for text output unless you use a CLEAR statement or specifically open a graphics screen; text is sent to the command window at the bottom of the editing screen. The Amiga is always in "graphics" mode, so no CLEAR is needed.

Even on the CrossPC-XT Block-n-Draw seems surprisingly zippy for BASIC. One reason for this is that True BASIC does not interpret as it runs; it compiles the program before starting up. Can't wait to get going? Before you start experimenting with changes in these programs or developing your own, make a mental note to save any important work on the PC side before flipping back; on occasion the PC has disappeared on me while I was dallying with my beloved Amiga.

Program Details

BBuild.TRU draws the geometric shapes and saves them as files with a .BOX extension which can be read into True BASIC and manipulated with the BOX SHOW and BOX CLEAR commands. Note also that names for saved files in the listings have been kept short in order to conform to the MS-DOS eight-character-plus-extension convention.

The Share statement at the beginning of the listing makes the array c() available to all the procedures in the program. The main section of the program begins by calling a routine to initialize (read in) the values of this array.

The array c() contains all the dimensions used to build the several shapes. The default dimensions (output coordinates) of a True BASIC screen run from 0 to 1 left to right and bottom to top, so all values in c() are expressed in decimal fractions. These were easy to deal with, as .5 would obviously be a point halfway across the screen, and so on. A graphic routine already set up using dimensions derived from counting pixels (perhaps for another, less helpful, version of BASIC) can be translated over to True BASIC simply by setting the screen coordinates to the pixel coordinates of the original program. Once set up, the routine will run on any True BASIC system that does graphics. (If your computer does not "do" graphics, even True BASIC can't make it change its mind.)

The figures are produced by passing the array (c) to the external PICTURE routines at the end of the listing. Defining these routines in terms of array members made it easier to develop the program. Once shapes are satisfactory, however, the True BASIC programmer will never have to fuss with original data, because the language offers facilities to resize (SCALE), relocate (SHIFT), reorient (ROTATE), and even reshape (SHEAR) them on the fly as they are drawn.

Once a figure is drawn, the Savem routine "keeps" it in a BOX. A BOX is a graphic object passed as a string variable and optimized for speedy manipulation on screen. These somewhat ephemeral objects are then saved to disk so that the drawing process need not be repeated every time the Block-n-Draw program is run.

The BDraw.TRU listing calls a "FrontEnd" routine to let the user know how to get out of the program. (Amiga users also have access to an automatically provided <STOP> menu.) Then the screen is set up—leaving in the Amiga-specific "hi4" screen mode won't phase the PC version a bit but will cause the program to run with a lugubrious black screen—and some basic variables are established.

The GetBlocks routine reads the saved graphic objects from disk. Because file access is the most likely place for problems to occur, a simple error handler has been included. This illustrates the use of the undocumented WHEN ERROR IN...USE structure. The error handler assumes that problems have been caused by a failure to run BBuild.TRU and takes advantage of True BASIC's convenient CHAIN command (also not documented in the Student Edition)

which allows one program to call another.

Once everything has been set up, the program moves into an endless but stoppable loop which checks for mouse activity and draws selected shapes on screen. The currently selected shape (in Image\$) is printed whenever the program determines that (1) the mouse is far enough outside the menu column to keep from overwriting it; and (2) the left mouse button is down. If the button is held down continuously, the speed at which the mouse is moved determines the pattern which emerges. The "eraser" operates in the same way as the other images but draws a rectangle of the background color.

Stubs like the empty CleanUp routine make a program simple to expand and improve or move to another language. Here it is included to emphasize one reason every programmer should have True BASIC: with its small command set and emphasis on structure, the package makes it incredibly easy to prototype a program. Later on frills can be added, key routines recoded in "C" or Assembler, and called from True BASIC, or the whole program can be translated into another language.

I tried moving another of my True BASIC programs to AMOS Professional. The main routines all worked with hardly any alteration, but I sure did spend a lot of time counting pixels and flipping through the manual to get the pictures straight! If I had started out in AMOS, I would have been doing all this hair-tearing before ever knowing if the program would work out—a sure recipe for frustration. If you are interested in getting ahead in programming, get True BASIC.

Listings

PROGRAM BBUILD

```
!*****!
!                                     !
!           BBUILD.TRU               !
!                                     !
!           © 1993   Susan B. Hussein !
!                                     !
!   Creates and saves the "blocks" to be used in the !
!           BlockDraw program        !
!                                     !
!*****!
```

```
SHARE c(0)           ! Using array allows easy changing of
!                   ! size and shape of pictures, etc.
```

```
!-----!
!                                     !
!   SUB DefineBlock—sets up array to store dimensions !
!                   to be used for graphic objects  !
!                                     !
!   First 4 array elements are left/right/bottom/top coords !
!   5th & 8th are for central points for star, !
!   6th is for flood fill for circle, 7th top of triangle !
!                                     !
!-----!
```

```
SUB DefineBlock
  MAT REDIM c(8)
  MAT READ c
  DATA .45, .55, .45, .65
  DATA .02, .05, .50, .08
END SUB
```

```
!-----!
!                                     !
!   SUB SavEm—"Keeps" graphic objects as string variables !
!                   Then saves them to disk              !
!   Parameters—                                           !
!   PName$ : Variable portion of File Name              !
!   PImage$ : Name program will use for picture          !
!   NOTE: Calling routine need not use same channel #    !
!-----!
```

```
SUB SavEm(PName$, PImage$, #7)
! Channel #7 unlikely to be in use
  BOX KEEP c(1),c(2),c(3),c(4) in PImage$
  LET F$ = PName$ & ".BOX"
```



```

OPEN #7: NAME F$, ACCESS OUTIN, CREATE NEWOLD, ORG BYTE
ERASE #7      ! Erase contents of any file already
              ! in existence, to allow new save
WRITE #7: PImage$
CLOSE #7      ! For reasons of style: TB will close
              ! channel anyhow when routine exits
BOX CLEAR c(1),c(2),c(3),c(4)
! Leave a clean slate for next image
END SUB

```

```

!*****
!
!          MAIN PROGRAM STARTS HERE
!
!*****

```

```

SET MODE "hi4"      ! Amiga-specific line
!SET MODE "medres"   ! Use this line to enable
                    ! PC white screen
SET BACK "white"    ! MS-DOS default is black

```

```
CALL DefineBlock
```

```

DRAW MyCirc(c)
CALL SavEm("RoundBx", "RoundBx$", #1)

```

```

DRAW OneBlock(c)
CALL SavEm("Block", "Block$", #1)

```

```

DRAW Triangle(c)
CALL SavEm("Triangl", "Triangl$", #1)

```

```

DRAW Star(c)
CALL SavEm("Star", "Star$", #1)

```

```

DRAW NoBlock(c)
CALL SavEm("NoBlock", "NoBlock$", #1)

```

```
END
```

```

!*****
!
!          PICTURE SEGMENT STARTS HERE
!
!          Main program must pass array to each picture
!
!*****

```

```

PICTURE MyCirc(c())
SET color "blue"
BOX CIRCLE c(1),c(2),c(3),c(4)
FLOOD c(7), c(7)      ! Color it in
SET color "black"     ! Outline it in black
BOX CIRCLE c(1),c(2),c(3),c(4)
END PICTURE

```

```

PICTURE OneBlock(c())
SET color "blue"
BOX AREA c(1),c(2),c(3),c(4)
SET color "black"
BOX LINES c(1),c(2),c(3),c(4)
END PICTURE

```

```

PICTURE NoBlock(c())      ! This will be our "eraser"
SET color 0
BOX AREA c(1),c(2),c(3),c(4)
END PICTURE

```

```

PICTURE Triangle(c())
SET color "red"
PLOT AREA: c(1),c(3);c(2),c(3);c(7),c(4)
SET color "black"
PLOT c(1),c(3);c(2),c(3);c(7),c(4);c(1),c(3)
END PICTURE

```

```

PICTURE Star(c())
! It is easier to use PLOT AREA for this figure,
! but it makes the lines too long to print easily
SET color "red"
PLOT c(1),c(3);c(7),c(7);c(2),c(3);c(7)+c(5),c(2);
PLOT c(2),c(4);c(7),c(2)+c(6);c(1),c(4);
PLOT c(7)-c(5),c(2);c(1),c(3)
FLOOD c(7)+c(5),c(7)+c(5)
SET color "black"
PLOT c(1),c(3);c(7),c(7);c(2),c(3);c(7)+c(5),c(2);
PLOT c(2),c(4);c(7),c(2)+c(6);c(1),c(4);
PLOT c(7)-c(5),c(2);c(1),c(3)
END PICTURE

```

```

!*****
!
!          PROGRAM BlockDraw—"Finger Painting" with Blocks
!
!
!          © 1993 Susan B. Hussein
!
!*****

```

```

!-----
!
! SUB Get Blocks—handles input of blocks from disk
!
! Parameters—
! PName$ : Variable portion of File Name
! PImage$ : Name program will use for picture
! Color$ : "red", "blue", or "0", for background
! gby : Vertical offset for each shape
!
!-----

```

```

SUB GetBlocks(PName$, PImage$, Color$, gby)
SET COLOR Color$
LET gbx = 0
LET F$ = PName$ & ".BOX"
WHEN EXCEPTION IN
  OPEN #7: NAME F$, ACCESS INPUT, ORG BYTE
  USE
    CALL ErrorHandler(PName$)
  EXIT SUB
END WHEN
ASK #7: FILESIZE IMAGELENGTH
READ #7, BYTES ImageLength: PImage$
CLOSE #7
BOX SHOW PImage$ at gbx, gby
END SUB

```

```

!-----
!
! SUB PlayMouse—loops continuously to check mouse !
! action and prints figures to screen
!
!-----

```

```

SUB PlayMouse
DO UNTIL key input      ! Let user escape
DO UNTIL init >1        ! Forever
  GET MOUSE x, y, MouseCondition
  ! Get first "real" mouse press

  IF MouseCondition <> 0 THEN      ! Button activity
    IF x >scr/xmod+scr/(xmod*2) THEN
      ! if mouse is outside shape menu area at left
      BOX SHOW Image$ at x-scr/(xmod*2),y-scr/(ymod*2)
    END IF

    IF x <scr/xmod+scr/(xmod*2) THEN
      ! if mouse is inside shape menu area at left
      IF y <scr/ymod THEN
        LET Image$ = Block$
        EXIT DO
      END IF
      ! if y < rest of shapes
      IF y >scr/ymod AND y <2*scr/ymod THEN
        LET Image$ = RoundBx$
        EXIT DO
      END IF
      ! if y > RoundBx
      IF y >3*scr/ymod AND y<4*scr/ymod THEN
        LET Image$ = Star$
        EXIT DO
      END IF
      ! if y > Triangle
      IF y >4*scr/ymod THEN
        LET Image$ = NoBlock$      ! "Eraser"
        EXIT DO
      END IF
      ! if y >
    END IF
  END IF
  ! end if mouse <> 0
LOOP
! end DO UNTIL
END SUB

```

```

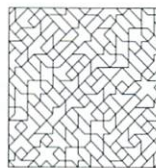
!-----
! SUB FrontEnd—Simple directions for user; if user can't !
! read, keypress will allow program to go on !
!-----

```

```

SUB FrontEnd
CLEAR
PRINT
PRINT
PRINT, "Press a key now to continue,"
PRINT, " and again later on, while clicking at left"
PRINT, " to exit program"
DO

```

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```

GET KEY k          ! Wait for user response
LOOP until k>31
PRINT, "Thank you. "
PRINT
PRINT, "Please be patient while I draw some shapes."
PAUSE 1
END SUB

!-----!
!
! SUB SetUp--Establishes screen modes and sets up
!       a few variables
!-----!
!
SUB SetUp
  SET MODE "hi4"          ! Amiga-specific
  !SET MODE "medres"      ! Use this line to enable
                          ! PC white screen
  SET BACK "white"        ! MS-DOS default is black
  LET scr = 1
  LET xmod = 10           ! Width is 1/10 of screen
  LET ymod = 5           ! Height is 1/5
  CLEAR
END SUB

!-----!
!
! SUB ErrorHandler--Called by WHEN ERROR IN...USE loop
!       in GetBlocks. Passed name of
!       missing image file.
!-----!
!

SUB ErrorHandler(PName$)
  IF init = 0 THEN
    PRINT
    PRINT, "CANNOT FIND "; PName$; ".BOX"
    PAUSE 1
    PRINT
    PRINT, "I will try to create it for you"
    PAUSE 1
    PRINT
    PRINT, "If I fail, check that BBUILD.TRU"
    PRINT, "is in the same directory with BDRAW.TRU."
    PRINT
    PAUSE 1
    PRINT, "Then run BBUILD first, or try me again."
    PRINT, "Meanwhile, please be patient"
    PAUSE 1
    LET init = 1
  END IF
END SUB

!-----!
!
! MAIN PROGRAM SEGMENT STARTS HERE
!-----!

CALL FrontEnd          ! Can be replaced with fancy stuff later
CALL SetUp              ! Alter screen modes, etc. here.
CALL GetBlocks("Block", Block$, "blue", 0)
IF init = 1 THEN        ! We've had an error; no BOXes
  CHAIN "BBUILD.TRU", RETURN ! Try to create them
  CALL GetBlocks("Block", Block$, "blue", 0) ! Try again
END IF
CALL GetBlocks("RoundBx", RoundBx$, "blue", scr/ymod)
CALL GetBlocks("Triangl", Triangl$, "red", scr*2/ymod)
CALL GetBlocks("Star", Star$, "red", scr*3/ymod)
CALL GetBlocks("NoBlock", NoBlock$, "0", scr*4/ymod)

DO UNTIL MouseCondition = 0
  GET MOUSE x, y, MouseCondition
LOOP
! Start with a "clean slate" of mouse clicks--
! not really necessary in this particular program

CALL PlayMousie
CALL CleanUp

SUB CleanUp
! Actually TRUE_Basic cleans up after itself pretty well--
END SUB
END

```

•AC•

Please Write to:
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Design Dingbats &

by Dan Weiss

Designing a newsletter is a common task that gets thrown into the lap of the desktop publisher whether it is producing the company newsletter, a family Christmas letter, or a club publication. The urge to volunteer springs from competitiveness—that you can improve upon what’s been done before. You have the tools, but do you have the technique? This series of articles started last month focuses on the techniques and shows them in action. Last month we started laying out the “Design and Dingbats” newsletter.

This is a newsletter that focuses on the elements of layout and design. To start off, we covered some basic terminology and ideas like teasers, gutters, dingbats, leading and logos. We also covered layout and design issues relating to five-column layouts, hyphenation and justification, datelines, bylines, and body copy. This issue we move from the simple one-page letter we started into a four-page layout. We will set up left and right page layouts, flow articles from page to page, explore kerning, and use continuation lines.

To do all this, we need to return to our newsletter *Design and Dingbats*. When we started this project, D&D was only going to be a simple two-page (front and back of one page) publication. Now the publisher and editor scream that they need more room. We need to expand the publication to four pages. To save on printing cost, we will actually be printing the whole thing on a single sheet of 11" x 17" paper, but as far as we are concerned, it works out to be four 8.5" x 11" pages. Now the simple thing would seem to be making three copies of the first page and go from there, but this does not take advantage of the left and right side nature of the document.

Hands On

Take a piece of paper and fold it in half so that it is divided in half along its longest axis. Now turn it on its side so that it opens like a book.

Mark the first page with a “1,” the left inside with a “2,” the right inside with a “3,” and the back with a “4.” This is the model we will be using. The numbers should be placed in the lower *outside* corner of the page. The terms inside and outside are meaningless on page one, but turn to page two. Now the outside is clearly the left edge, where on page three the outside is clearly the right edge. This is what is meant by left and right hand pages. If you look at the magazine you are reading, you will notice that it follows this strategy. They supplement the page numbers with the words “Amazing Computing” on the left page and “June 1993” on the right page. Other places in the magazine you will notice this left and right handedness. In the reviews section the word “REVIEWS” is placed in the upper outside corner of the page.

For D&D we want to put page numbers in the outside left corners on the second and third pages only. We do this because the first and last pages can be more logically referred to as the front and back covers. Also we want to modify the five column layout so that the narrow columns are always on the outside. The end result is that our pages will take on the basic format shown in Figure 2. If this were to be a longer document such as a manual we would also want to put chapter or section tabs on the outside edges—not physical tabs, but blocks of solid color that move down the

Part two of our series on designing & producing a professional newsletter

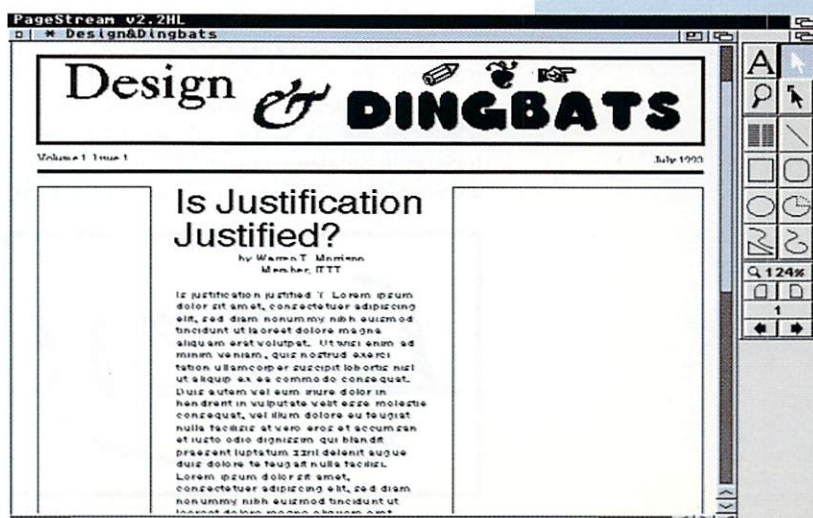
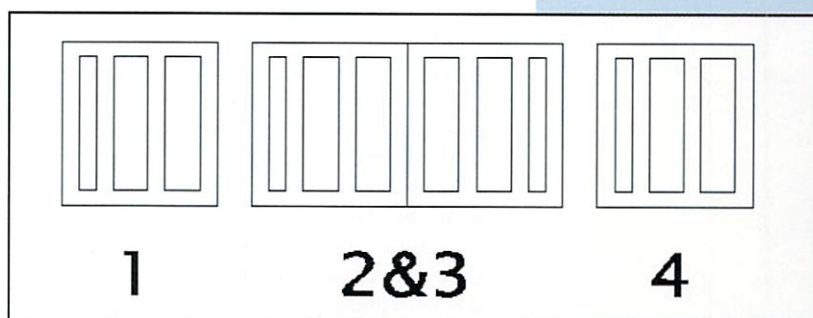
page, like tabs, when the section or chapters change. This way the reader can flex the document lightly and see a clear set of printer tabs running down the edge. Many manuals including those from Soft-Logik Publishing do this.

Go with the Flow

Of course now that we have more pages we should flow articles from one page to the next. What is "flow"ing text? Flowing text refers to having text in one column continue in another. How do we flow text then? Well, this depends on the program. In a word processor, you really have no choice; text goes to the next column or page no matter what. But the distinction of a page-layout program is the ability to route text from column to column. In *PageStream* this is accomplished with the command "Set Text Routing." In *PageMaker* on the Mac and PC this is done by clicking on the bottom "window shade handle" and then clicking inside a new set of column guides. In the case of all page-layout programs there is always a clear indicator at the end of a column that shows if a column is not long enough to display all the text flowed, or routed, to the column. In many programs this is a small box with a cross in it. In the case of our first article we can see that the column cannot hold the whole article (Fig 3). This means that we will need to flow the text from the column on the first page to another column.

Since the covers are prime real estate, in that they are the most visually accessible, we don't want to flow articles to them. Rather we want to start articles on the first and last pages and flow towards the inside. Let's take our first article then and flow it to the second page.

Now that we have flowed the text to the first column on the second page, we can see by the indicator that we need one more column, so we flow the text to the second wide column on the second page. The text from the article fills only the top third of the column. This means we have some additional space at the end of the column that could be used by another article. But we cannot insert text routed from another column into the middle of this one. Instead we need to shorten this column and create a second column that starts below it and ends where the original column would have ended.



Figures 1 & 2: We want to modify the five column layout so that the narrow columns are always on the outside.

Keep It Tight

Before we resize the column and start a new column, we should make sure that we have the text prepared as we want it. Referring to last issue, we need to make sure that the font, point size, leading, and hyphenation are all set correctly. Additionally, we need to look at the kerning of the document. Kerning? you ask. Well, kerning is actually a very simple idea that can make a big difference in your work. Get out a piece of paper and write NAVAL in capital letters. Now draw a rectangle around each letter that is just big enough

"V" at the same rate the "V" moves toward it. In the case of the word "Tea" the "T" and "e" seem far apart. This is so because the "T" is very narrow at the point where the "e" is. In all of these cases, we need to do what you did on the paper without thinking; we need to move the letters closer together.

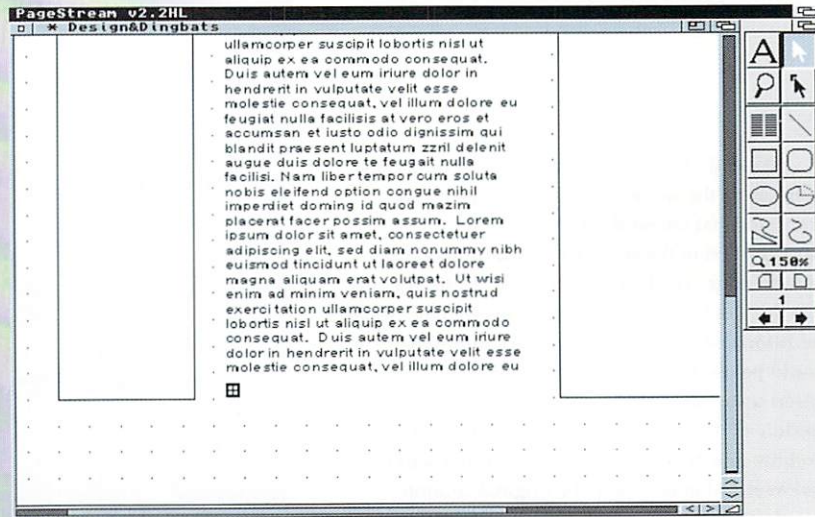
Your reaction now may be that this is going to be a lot of work, but it isn't. In fact all professional programs will do this automatically for you. The secret is that most kerning can be done by the computer based on the pair of letters that need to be kerned. In the case of the word "NAVAL," the kerning routine will look up the kerning distance for the "NA" pair. The value is probably 0 so no kerning is performed. Next, the pair "AV" is checked, and is found to have a kerning value of -5. This means the "V" is moved five units to the left towards the "A." The "VA" pair is also -5 and the "AL" pair is 0. In the case of the "AVA" section, it might seem that the same rule is used twice, but it isn't. Each combination order has a different value. In the case of "fe" and "ef" in "effect," the "fe" combination has a kerning value to tuck the "e" under the crossbar of the "f." But the combination "ef" has no kerning value as there is no place to tuck the "e" on that side of the "f" (Fig 5).

Where does the computer get this information? Since the information is different from font to font, the information is either stored in the font, or in a file associated with it. For PageStream, this information is kept in the .FM or .AM file. For *Professional Page* the information is kept in the .metric file. Metrics, the "M" in .FM and .AFM, is the term used to refer to the character size and kerning information. In the case of a professional font, there may be from several hundred to over a thousand kerning pairs defined. This information is usually missing from poorer quality or public domain fonts.

As mentioned above, we do not need to kern each letter pair; instead we can batch kern the article, much as we batched hyphenated it earlier. The end result can significantly shorten a long article.

Where Was I, Where Am I Going?

Now that we have tried just about every trick in the book to tighten this article, we are ready to shorten the column. Starting on the first page we need to shorten the column by a quarter inch (.25") at the bottom. This causes the text to flow more into the second page. In the gap we created we need to place a continuation line. This tells the

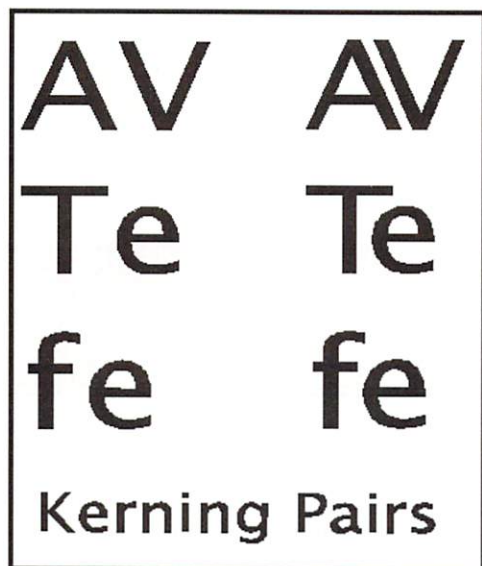


to hold each letter. Do your boxes overlap? If so you have just performed kerning. You see, there was a time when letters on a printing press were mounted on blocks of wood. To make things look good each block was just large enough to hold the letter. When the blocks were all lined up the space for each letter was pretty good. Some letters were wider, like "W," and some narrow, like "i." But some letters, like a "y" with a long tail running to the left were made with the tail as a special piece that went under the other letters (Fig 4). These are the original kerning characters, also know as swash characters.

Over time, as we have moved to the electronic version of block type, we find that some normal characters look funny together. In the case of NAVAL, the "N" and the "A" seem too close together in comparison to the "A" and "V." This is so because the "A" seems to move away from the



Top: Figure 3, The small box at the end of the text indicates that there is still more text to place. Left: Figure 4.



Above: Figure 5. The secret is that most kerning can be done by the computer based on the pair of letters that need to be kerned. Right, Figure 6. A carefully placed "Continued" will give the reader a sense of direction.

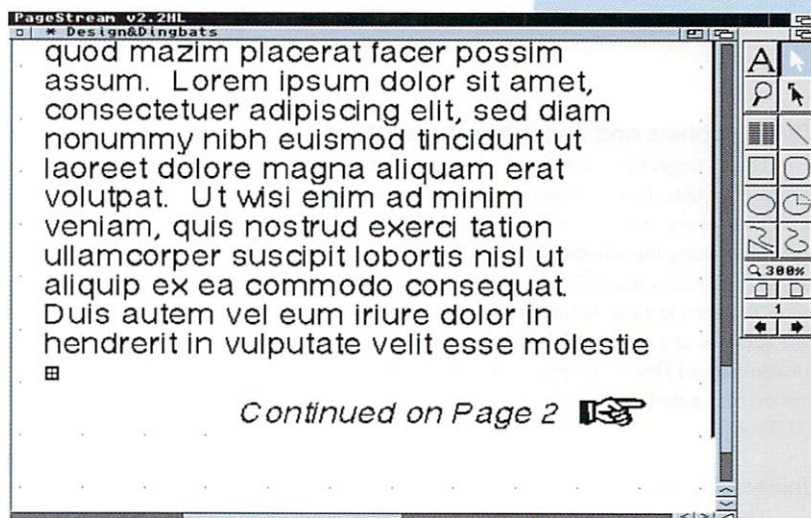
reader where the article has gone to. In the case of side-by-side columns, like on the second page, this is not necessary as the reader naturally moves to the next column. The continuation line for our publication will use the body font in italics and use the right pointing finger dingbat to show that the article has continued in that direction (Fig 6). The line reads, "Continued on Page 2." Turning the page we need to place a continuation line at the top of the second column. Again we shrink the column by a quarter inch, from the top this time, and use the line "Continued from Cover" with the left pointing finger pointing back to the first page.

When we discussed dingbats in the first article we noted that one of the uses was as a column ender. In the magazine you are reading •AC• is used as a column ender. In Design and Dingbats we use the colophon character (☛) as our column ender. Since this symbol always goes at the end, we can place it in the column. The continuations could not go in the article since the text may be changed and cause the markers to move out of place. Now that the article has been properly ended we can shorten the column, and we are done with our first article!

Who Am I?

But wait, who is this person who wrote the article? Sure, we know his name is Warren T.

Morrison and that he belongs to the ITTT, but besides that, who is he? Well, now it's time for the short biography. This can be in any format, and may even include a small picture so you would know this guy if you met him. Luckily we don't have a picture, as we are running tight on space, but we do have room for a few lines. We will set the bio in italic type to set it apart from the article. If we were looking to kill some space, we could place it at the bottom of the page, but we need the column space. Mr. Morrison, as it turns out, wants to push his new books, so his bio reads, "Warren



T. Morrison, Temple University BA '81 MA '89, author of *Type for Our Time* and *What Gutenberg Got Wrong*, is a renowned pundit in the publishing world. Currently he resides in the picturesque hamlet of Sikeston with his dogs Mike and Becki. He can be contacted at 1313 Mockingbird Lane, Sikeston, MO."

Conclusion

Well, once again we have reached the end of the article and D&D's deadline continues to move closer. Next issue we will cover items such as pull quotes, graphics, ads, and a Table of Contents. But don't be shy about starting your own newsletter before we finish D&D. In fact I am anxious to see newsletters from those of you following along. Until next time.

•AC•

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INSIDE

AReXX

Videographers and Animators, ReadME!

These programs will interest videographers, animators, and computer artists. I coded these examples due to popular demand. Just about every other phone call I get about *The ARexx Cookbook* is someone asking me whether I have a routine to batch convert a bunch of GIF files into IFF, or whether I have a routine to convert some Toaster Framestore files into IFFs, and so on. I decided to write two versions of a Graphic File Batch Converter, one that uses the convenience of *Directory Opus* controlling *ADPro*, and a version that works from a shell or directly from Art Department Professional (*ADPro*).

Universal Loading

The user determines the final format of the output, but the program reads the files in a "smart" way; that is, it detects the format and loads accordingly. *ADPro* does not yet have any means to work with the Video Toaster. But *ADPro* version 2.3 can deal with the Toaster Framestore format, and it will be out by the time you read this. Judging from previous standardization in *ADPro*, I'm confident that my code will work with the new version and be able to load and save Framestore images without modifications. The reason is that *ADPro* has a loader called *UNIVERSAL* which

automatically detects the file format of your input files, and calls up the appropriate loader. The *UNIVERSAL* loader in *ADPro* v2.3 will have been updated to include the ability to call up the *Framestore* loader when it detects *Toaster* format. There is at least one loader (*Sculpt*) that will not work with *UNIVERSAL*. You can modify my code easily to load *SCULPT* format if you wish. You may want to code the *LOAD* format to behave like the *SAVE* format to allow you to select the specific load format directly from the *LOADERS2* directory.

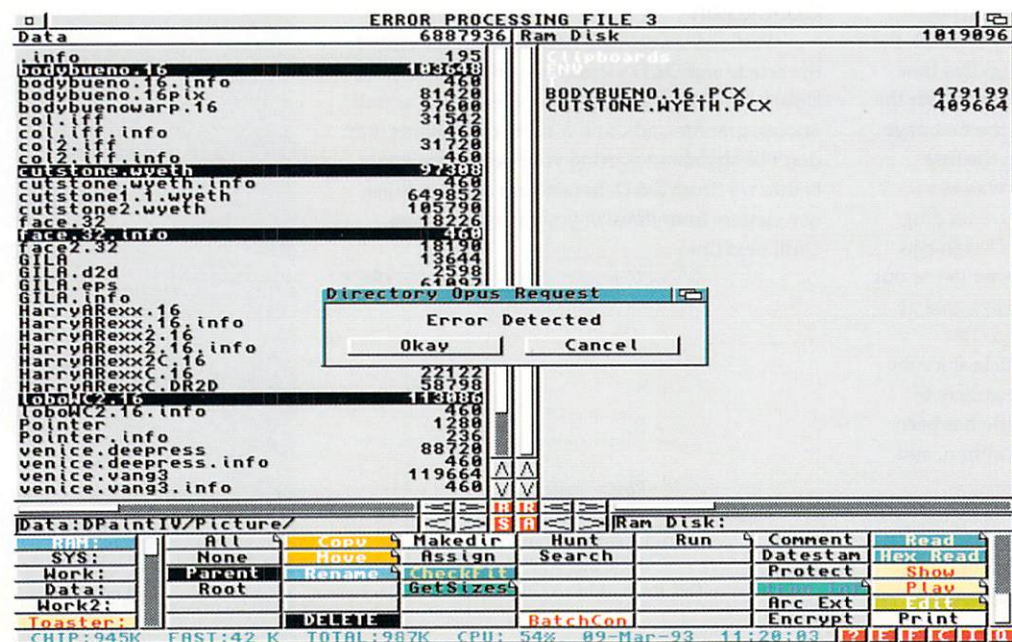
User Selectable Saver

The other half of a Batch Conversion is the Saver you want *ADPro* to use. Our programs let you select the Saver directly from the *Savers2* directory in *ADPro*. So that you can tell which files have been converted, we'll give the converted files an extension name: the name of the Saver; that is, convert to IFF, then the resulting files have ".IFF" appended as their extension. Change my code to add any sort of suffix you want to your converted files.

Save Types

ADPro needs a Save TYPE for every save. Some saves also take Save Options (called *S_OPTS* in the *ADPro* manual). Some savers

only save one type of data. For instance, IFF saves in RAW, IMAGE, or SCREEN type, with no *S_OPTS*. RAW is the 24-bit data; IMAGE is the rendered data, say, 16-color hi-res; and SCREEN is like IMAGE except that it is the CROPPED SCREEN image. A few savers, such as GIF, save only in IMAGE type. All the rest save at least in RAW type. Since RAW contains the most information and will be the format of choice most of the time, we'll use a *SELECT* block to set the Save type to RAW



Batch-Converting Graphic Files with ARexx, ADPro, and Directory Opus

by Merrill Callaway

unless the selected Saver can only save in IMAGE. For JPEG, the program prompts for S_OPTS: compression quality level and whether to BOOST or not. The SELECT block makes it easy to modify the code to set a different Type of Save or to input S_OPTS for other Save formats.

Two Versions of Batch Convert

Both versions do the same thing, but BatchConvert.dopus and its external function, BatchConvert.rexx, use Directory Opus (DOpus) to let you drag-select a list of files to convert and copy into the destination window. SF4.adpro is designed to operate from ADPro as a function key program, (Shifted-Function Key 4) or from a shell launch.

DOpus Operation

For BatchConvert.dopus, you use the DOpus configuration to make an ARexx button or menu with "BatchConvert.dopus" as its name, to run asynchronously. Then, back in DOpus, you drag-select a group of files in the source window that you want to Batch Convert and be copied to the destination window. Next, you click on the BatchConvert button, or select it in the menu.

A DOpus requester will pop up asking you if you want "Error Detection?" If you want to have the conversion stop when there is an error and let you see which file didn't load or convert, then answer "Okay." If you want to have the routine automatically skip over errors, answer "Cancel." At the end of the conversion, the Top Text will give you a count of how many files were processed and how many errors were encountered. Error detection is there so you can select all the files in a directory and not worry about ".info" files. Anything that will not load or convert will be skipped. The DOpus "front end" calls an external function, BatchConvert.rexx, with each file in turn as the argument.

ADPro will be located if running, or launched if not, and the Savers2 directory opened for you to select a Saver to Batch Process your files. After you select a saver, then the program continues automatically until all the files have been processed. By means of ENV (environment variables) the Savers2 directory is opened only once. The converted files will go to the re-scanned destination window with an appropriate qualifier, and the error printout will appear in the top text.

SF4.adpro

The ADPro version is much the same, except that you don't get an error requester each time an error occurs; only error statistics in the form of OKAY1 requesters appear at the end. I've named the

program SF4.adpro, to launch when Shifted-Function key F4 is pressed. You may also open a shell, and then enter at the prompt:

```
RX SF4.adpro
```

ADPro will be located or started up. Next a directory requester will open up, defaulted is RAM:, which you may change. Select a directory to save the results to. Next a directory, defaulted to DATA:, will open up. Shift-Select all the files you want to convert here, and click on OK. Then the Savers2 directory will open and you select a Saver. Everything else is automatic, with error statistics at the end.

BatchConvert.dopus

BatchConvert.dopus is very similar to the JPEG program in January's column. I altered the code directly by doing a "save as" on the JPEG program and its external function, and editing them. The code for the front end was built around a STATUS command to find the source and destination windows, read the selected files into a long string, then parse the string into an array of file names to use as arguments passed to the external function to process them in ADPro.

Note that DOpus V4.0 has a NEW HOST ADDRESS called DOPUS.1. Changes to the former JPEG code include:

- 1) A requester to set the variable "errdet" to trap errors
- 2) A condition to print top text if an error comes back from BatchConvert.rexx and errdet=1
- 3) Loading a library to allow us to set ENV variables (variables that persist in the system) to be used by any program.

We use rexxarplib.library, by Willy Langeveld, available free on BBS, included in The ARexx Cookbook Disk I, and also on Bill Hawes' ARexx Disk. In case you don't choose to use this library, you will have to recode the two programs into one program. Then assign these values as variables instead of using SETENV(). You will also have to determine your "persistent" variables in the main program and pass them as arguments to the internal function. See SF4.adpro to see how to do this.

I did the DOpus programs with environment variables because I already had the structure in place from the JPEG routines, and to illustrate the correct way to set variables that persist in the environment. Environment variables are elegant for interprocess controls where you have several programs using the same set of variables. Rather than make complex programs, you can make smaller

programs that do increments of the overall process and are much easier to debug. The ADPro program SF4.adpro illustrates how to avoid using the rexarplib.library.

For errors we simply count the errors in the variable "Enum" whenever the external function returns a value over 5, and report that number in the top text. Finally we rid the system of the two ENV variables we set, as they would persist even after our programs shut down!

BatchConvert.rexx

This is a simple modification of January's JPEG external routine. It's now only an external function program because we're using SF4.adpro as the ADPro only program. We follow almost the entire structure of the former program except that we change the LFORMAT to "UNIVERSAL" to make ADPro "smart load" our files. For error checks, we set cl=RC when we load and cs=RC when we save. Note that we "EXIT cl+cs" to return to the calling program the total error results to trip our error handling. RC is the Return Code from any operation. Most of the time but not always RC=0 means a successful operation. We must *immediately* assign RC to some variable if we wish to record RC for use later, as RC constantly changes. All ARexx commands return RC and a RESULT variable. In ADPro, the standard "RESULT" is called "ADPRO_RESULT".

PROCEDURE. This remains a mystery that makes me appreciate the SETENV() GETENV() functions all the more!

BatchConvert.rexx and SF4.adpro

A GETFILE is used to get the Saver file from the ADPro Savers2 directory that we wish to use for converting this batch. Note how we parse off the variable "saverformat". We don't need the path name returned by the GETFILE command, only the actual saver name. An SFORMAT command sets the save format to use throughout the batch conversion.

A SELECT block lets us set the TYPE of save. Modify this block to suit your own conditions by adding a WHEN statement, or modifying the type settings. Check with your ADPro manual to make sure your type is legal. The default is in the OTHERWISE statement: RAW. Note the special case for JPEG. We use an ADPro GETNUM requester and an OKAY2 requester to get the quality number (between 1 and 100; default 32) and whether to BOOST quality or not.

SF4.adpro

Once the list of FILES and the SAVE "type" and "saverformat" are determined, then the program calls DOIT to load and save. Notice the way to pass the four arguments to the interior function.

BatchConvert.dopus is very similar to the JPEG program in January's column. I altered the code directly by doing a "save as" on the JPEG program and its external function, and editing them.

We use environment variables to keep track of the save Type and the save Format, which we want to determine only once in this external function. With environment variables, we don't care where we set them; once they are set, they persist, and may be used by any program whatsoever at any level until we clear them. The syntax is CALL SETENV(name,value); CALL SETENV(name) clears the variable.

SF4.adpro

Rather than use the Environment variables "savetype" and "convformat", we set "saverformat" and "type" directly in the MAIN program, not in the internal PROCEDURE. You must pass variables you wish to act like environment variables (determined once, used thereafter) *down* from the top rather than determine them in a lower level such as in the PROCEDURE. Advanced Programmers Note: It is problematic to try to set a variable (in the PROCEDURE) that had been uninitialized in the MAIN program, and then use that variable to make a condition true only on the first call to the PROCEDURE, when you need to get the Save format and determine the Type. On the second, third, and subsequent calls, you want the program to skip because the condition is false. By use of the SYMBOL() function in the conditional test, and EXPOSING variables "type" and "saverformat", I could get ARexx to do this and to construct what looked like a perfectly proper SAVE string (as read by a trace i); but when the command was sent to ADPro as a command string, it failed the SAVE except on the first call to the

On condition of cl=0 (a successful Load), then ADPro is invoked to Save the file.

SF4.adpro and BatchConvert.rexx

If you are in doubt as to how to decode the SAVE expression, do a trace on the code. Briefly, the format for a SAVE is

```
SAVE "path/filename" "type" S_OPTS
```

In the code, we have concatenated "todir" (the path name) with "filename" (the filename), appended the variable "saverformat" to the end as a qualifier with a ".", and finally attached the variable "type" to the end, which also contains S_OPTS for JPEG. Note the power of the ARexx string handling: first evaluating the expression and then performing the operation—a command sent to ADPro—all in one line!

Conclusions

Now you see how easy it is to make a batch converter in ARexx using ADPro and Directory Opus. You can probably think up all sorts of additions and improvements!

Listing One

```

/*
** F4.adpro
** Batch Convert files in ADPro or from shell.
** (c) 1993 by Merrill Callaway
*/

OPTIONS RESULTS
errl=0
errs=0

/* locate or start up ADPro */
CALL Locate_ADPro

IF RESULT = 1 THEN DO
  ADDRESS 'ADPro'
  ADPRO_TO_FRONT
  /* default is RAM: */
  "GETDIR 'Enter the Destination Directory.' 'RAM:'"
  todir=ADPRO_RESULT

  /* Default is DATA: */
  "GETFILES 'Shift-select files to convert.' 'DATA:'"
  filelist=ADPRO_RESULT

  /* find out the saver format */
  "GETFILE 'Select SAVER for Batch Convert.'" "ADPRO:SAVERS2" "IFF"
  saverfile=UPPER(ADPRO_RESULT)
  PARSE VAR saverfile . 'SAVERS2/' saverformat .
  SFORMAT saverformat

  /* Fix the save type IMAGE or RAW */
  /* NOTE: You may easily tailor this block */
  /* to the options you want for your batches. */

  SELECT
    WHEN saverformat='A2410' THEN type='IMAGE'
    WHEN saverformat='DPIIE' THEN type='IMAGE'
    WHEN saverformat='GIF' THEN type='IMAGE'
    WHEN saverformat='HAME' THEN type='IMAGE'
    WHEN saverformat='JPEG' THEN DO
      "GETNUMBER 'JPEG Quality' 32 1 100"
      num=ADPRO_RESULT
      OKAY2 'BOOST Quality?'
      IF RC>0 THEN type='RAW' num 'BOOST'
      IF RC=0 THEN type='RAW' num
      END
    OTHERWISE type='RAW'
  END

  DO WHILE filelist!=''
    PARSE UPPER VAR filelist pathfilename filelist
    conv=DOIT(pathfilename,todir,saverformat,type)
    PARSE VAR conv cl '.' cs
    IF cl>5 THEN errl=errl+1
    IF cs>5 THEN errs=errs+1
    END

  IF errl=1 THEN suffix='error loading.'
  ELSE suffix='errors loading.'
  IF errs=1 THEN suff2='error converting.'
  ELSE suff2='errors converting.'

  'OKAY1' errl suffix
  'OKAY1' errs suff2
  EXIT 0
  END

  ELSE EXIT 10

DOIT: PROCEDURE
  PARSE UPPER ARG ""pathfilename"" , todir, saverformat, type

  PARSE UPPER VAR pathfilename part':'filename

  DO WHILE filename!=''
    PARSE UPPER VAR filename first '/' filename
    END

  filename=first
  IF RIGHT(todir,1)='/' | RIGHT(todir,1)=':' THEN NOP
  ELSE todir=todir||'/'
  LFORMAT "UNIVERSAL"

```

```

LOAD pathfilename
cl=RC
IF cl>5 THEN RETURN cl'.0
SAVE todir||filename||'.'||saverformat type
cs=RC
RETURN 0'.'cs

```

```

/* Find out if ADPro is running...*/
Locate_ADPro:

IF ~SHOW('P','ADPro') THEN DO
/*
** NOTE! I have lots of RAM. Fix the MAXMEM=# to your RAM prefs
** (the maximum amt of RAM you want ADPro to use (in bytes)).
*/
  ADDRESS COMMAND "RUN ADPRO:ADPRO BEHIND MAXMEM=14000000"
  ADDRESS COMMAND WAITFORPORT 'ADPro'
  IF RC=0 THEN RETURN 1
  ELSE RETURN 0
  END
ELSE RETURN 1

```

Listing Two

```

/*
** BatchConvert.rexx an external function to
** Batch Convert files in ADPro from Dopus.
** (c) 1992 by Merrill Callaway
*/

OPTIONS RESULTS

PARSE UPPER ARG pathfilename todir .

PARSE UPPER VAR pathfilename part':'filename

DO WHILE filename!=''
  PARSE UPPER VAR filename first '/' filename
  END

filename=first
IF RIGHT(todir,1)='/' | RIGHT(todir,1)=':' THEN NOP
ELSE todir=todir||'/'

/* locate or start up ADPro */
CALL Locate_ADPro

IF RESULT = 1 THEN DO
  ADDRESS 'ADPro'
  ADPRO_TO_FRONT
  LFORMAT "UNIVERSAL"
  LOAD pathfilename
  cl=RC
  /* pick up environment variables if they exist */
  saverformat=GETENV(convformat)
  type=GETENV(savetype)

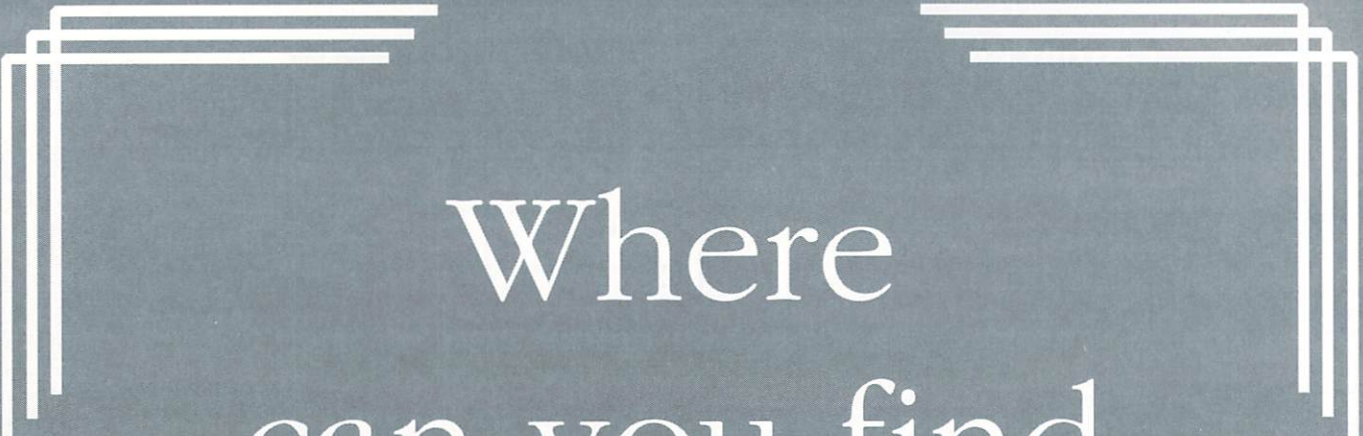
  IF saverformat='' THEN DO
    /* find out the saver format */
    "GETFILE 'Select SAVER for Batch Convert.'" "ADPRO:SAVERS2" "IFF"
    saverfile=UPPER(ADPRO_RESULT)
    PARSE VAR saverfile . 'SAVERS2/' saverformat .
    SFORMAT saverformat

    /* Fix the save type IMAGE or RAW */
    /* NOTE: You may easily tailor this block */
    /* to the options you want for your batches. */

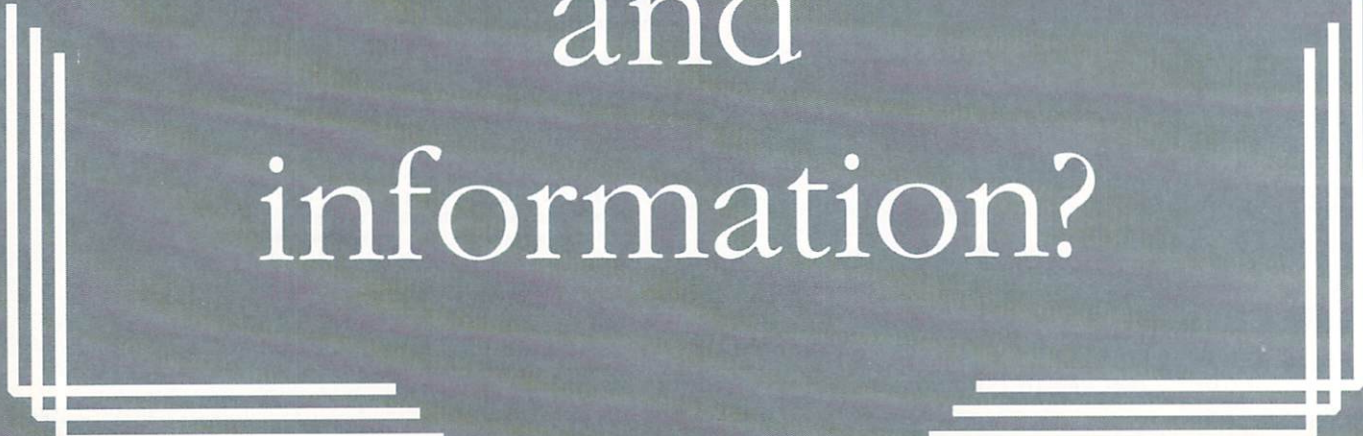
    SELECT
      WHEN saverformat='A2410' THEN type='IMAGE'
      WHEN saverformat='DPIIE' THEN type='IMAGE'
      WHEN saverformat='GIF' THEN type='IMAGE'
      WHEN saverformat='HAME' THEN type='IMAGE'
      WHEN saverformat='JPEG' THEN DO

```

(continued on page 79)



Where
can you find
the widest
variety
of fresh
Amiga news
and
information?



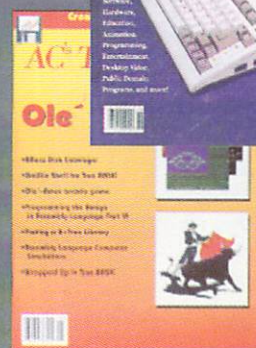
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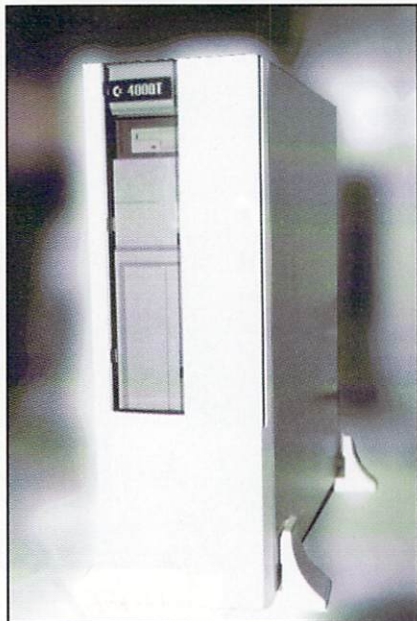
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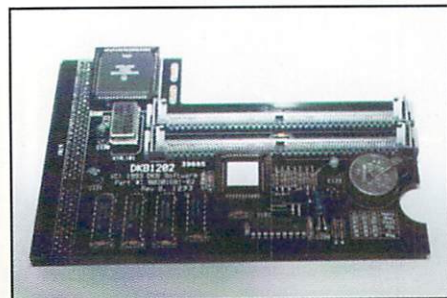
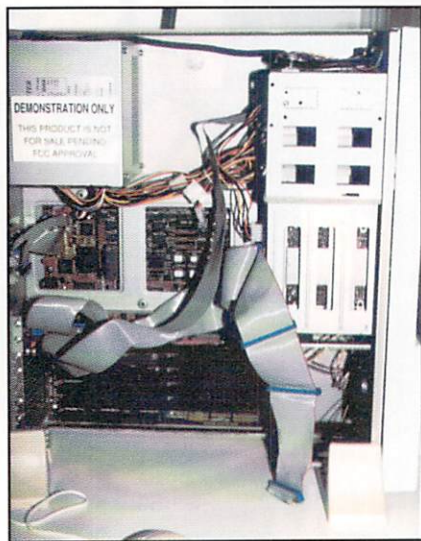
Call 1-800-345-3360

World of Commodore Amiga NY '93

Amiga In The Big Apple Generates an Abundance of New Products



Commodore's as yet to be announced Amiga 4000 Tower (above and below) is still under construction. However, first glimpses of the proposed machine show two video slots, a fast SCSI-2 interface, and an abundance of drive spaces available.



The World of Commodore Amiga in New York (April 2-4) offered several surprises, a few expected releases, a few unexpected releases, and a great deal of enthusiasm for the Amiga. Exhibitors from the U.S. and Canada were showing their latest Amiga developments to a packed crowd of Amiga users. Attendees arrived from as far away as Japan, Australia, and Europe.

While no final figures were available by press time, the attendance for this event appeared higher than the past two New York shows. Audiences packed most seminars to standing room only. During Jim Dionne's keynote address delivered on Saturday, the rear walls of the seminar room were torn down and moved back to allow more people access to the area.

Mr. Dionne, President of Commodore Business Machines, U.S.A., delivered a speech very similar to his talk of last year. He addressed the audience's concern for the marketing and the distribution of the Amiga. He stated the areas in which Commodore was currently marketing and advertising and he addressed the reasons these markets were important to the Amiga community.

Video, training, presentations, kiosks, and the current Amiga user-base were stated as the most important areas for the Amiga. Mr. Dionne noted that the Amiga has gained support in Hollywood and has been instrumental in such projects as Disney's *Aladdin* and the future underwater television adventure show, *SeaQuest*, from Steven Spielberg's Amblin Television. He also noted the success the Amiga had in helping second-guess enemy tactics during the Gulf War.

For Commodore 64 fans, Mr. Dionne noted that the C64 was still in demand. In preparation to the Gulf War, the Pentagon ordered 60 new Commodore 64 computers. Apparently there was a necessary program which had not been converted from the 64 and the Pentagon needed the equipment to run the program.

Promising more mailings to user groups, better concentration on Amiga-specific technologies, and an overall improved approach by Commodore to better communicate with their users and dealers, Mr. Dionne presented a very upbeat appraisal of Amiga possibilities.

Mr. Dionne's presentation was directed live from an Amiga on stage. Aside from the information and the strong support for the Amiga, it was a pleasure seeing the small "WOCA '93" logo in the corner of all the presentation screens.

Commodore had announced the new Amiga 4000-030 just two weeks before the event, but they utilized WOCA to sell them. Many users prefer the lower cost, slower version of the A4000. The machine is still capable of producing the wide range of video resolutions available on

DKB's 1202 accelerator (left) joins products from GVP, EMI, and ICD to enhance Commodore's smallest AGA computer, the Amiga 1200

the Amiga 4000 and 1200, but its list price of \$2399, with its street price drastically below that, made the computer a demand item throughout the show.

The Commodore booth was populated with all types of Amigas and applications. Jeff Porter's special MPEG display, seen at the January CES show (please see the CES Winter '93 article in the March issue of *AC*), was running flawlessly. However, it remains an unannounced product with no firm due date.

Commodore displayed the Amiga 4000 Tower, known as the A4000T, at both WOCA and CeBIT in Hannover, Germany. However, Commodore officials were quick to state that the demonstration machine was for display only and was not a released standard. This translates into, "Take a look, but we have every right to change and rearrange things until we officially announce it."

The unit on display was attractive with its clear beveled plastic door, but the real surprise was inside. While the 4000T will use the new AGA chip set and perform in much the manner of its predecessors, it will have two video ports. This two-port configuration will allow users to access more than one of the current video cards or allow a card designer to create a card larger than the current slots permit.

Barring any compatibility problems, now GVP's IV24, Centaur's *OpalVision*, NewTek's *Video Toaster*, or any other Amiga video board can be coupled in a mix and match format (of a total of two cards) and allow video professionals and amateurs to manipulate the best features of each to create an unequalled video effects.

The A4000T also includes CBM's new fast SCSI-2 interface on the motherboard. This interface will also be available for any Zorro III-slotted Amiga as the A4091.

The A4000T provides additional space for hard drives, CD ROM drives, and tape backup systems. With two vertical and three horizontal full size drive spaces available in the front and two additional spaces inside the box, the A4000T allows up to seven working drive configurations before you consider placing drive cards in the slots on the motherboard.

The exact date of the A4000T's release remains unknown. However, a reliable source believed the product would be available by mid-fall of this year.

Amiga 1200 Support

Great Valley Products, DKB, ICD, and Elite Micro-Computers all displayed announced or soon-to-be-released products for the Amiga 1200.

GVP was displaying their A1230 Turbo+, an accelerator, RAM expansion, and math coprocessor board for the Amiga 1200. The card will support up to 32MB of 32-bit RAM expansion using a custom SIMM design. It will also support a 40MHz 68882 math coprocessor.

The A1200 SCSI/RAM+ is another GVP board vying for the A1200's expansion bay. This device is a DMA (Direct Memory Access) SCSI interface which will allow up to seven SCSI devices to be connected to the A1200 at one time. It can be expanded to 8MB of 32-bit RAM through its two RAM slots.

DKB introduced the DKB 1202, an Amiga 1200 expansion board that uses the 68881 math coprocessor at 16MHz with 32-bit memory expansion of 1, 4, 5, & 8 MB. With 2 SIMM sockets, a built-in real-time clock, and trap door installation, the unit has a suggested retail price of \$189.95. DKB's stand-alone real-time clock, called The Clock, retails for \$29.95.

Elite Micro-Computers had several new offerings for the A1200. The "2 to 3, IDE" (\$50) is an adapter board for the internal IDE port that provides an additional standard size IDE port in the rear of the A1200 for a second IDE drive. EMC also announced their Modular Expansion System (\$50) that would allow A1200 users to fit two expansion boards in the standard RAM expansion port. EMC will allow other hardware developers to utilize the device through a licensing agreement. EMC also offered the Power Box, a device enclosure (to hold two 5 1/4 inch devices) and a 200 watt power supply. The Power Box supports both SCSI and IDE devices, while The BackPack, from EMC, supports a single external IDE hard drive unit.

EMC also displayed their 486SLC 33MHz Bridgeboard for use in the A2000, A3000, or A4000.

ICD also introduced a new standard for the A1200. Their Viper 1230™, ICD's new 68030 accelerator, provides a DMA port for additional plug-in devices. The Viper 1230 is available in 40MHz (\$499) and 50MHz (\$699) versions. Industry standard SIMMs can expand the card up to 32MB.

The first card ICD created for the DMA port was the Viper S2™, a SCSI-2 controller that connects through the knock-out panel in the rear of the A1200. A single screw (already positioned in the A1200) is used to secure the interface card. An internal SCSI-2 connector is included to support a 2.5-inch SCSI hard drive internally.

Beyond A1200 Hardware

GVP once again manned one of the largest third-party vendor booths at this event as they demonstrated a wide variety of new and enhanced products. The DSS8+ is a new version of their 8-bit digital sound sampler the DSS8. The DSS8+ comes in a clear acrylic case (featured on this month's cover). A new utility allows the user to "pop up" a control panel in front of virtually any screen or program. The new multi-lingual utility provides slider controls for left and right input levels, frequency filter settings, and sam-

pler reference levels. An additional utility has been provided for full ARexx support.

PhonePak was on display with the soon-to-be-released 2.0 software. The Voicemail/fax system for A2000 to A4000 Amigas has been revised for better fax control, improved interfaces, and more.

IV24 Version 2.0, GVP's 16-million color, 24-bit multifunction graphics board, features a built-in genlock, frame grabber, frame buffer, and flicker de-interlacer, plus picture-in-picture ability. The IV24 now comes with MyLad, a switching package for user control of video transitions, and Desktop Dark-room for image capture and photo retouching.

ToasterFX works in connection with the Video Toaster and GVP's ImageFX software to provide a complete paint and image processing package. ToasterFX will be released by Byrd's Eye Software; however, GVP was very excited by its potential. ToasterFX can load framestore files directly into ImageFX as 24-bit images, save any ImageFX file directly to NewTek's frame store format, convert Video Toaster framestores directly to Amiga IFF24, JPEG, Targa, TIFF, GIF, Alias formats, and more, as well as display ImageFX in the Video Toaster's framebuffers.

WOCA NY, was the USA launch of ICD's Trifecta 500LX. The Trifecta series is available for the A500 and the A2000 in either the LX or the EC models. The Trifecta 500LX (\$349.95) offers a fast DMA SCSI-2 controller, an IDE controller (that can support two drives and run simultaneously with the SCSI-2), an expansion slot which will support GVP's PC emulation board, and up to 8MB of fast RAM. The Trifecta 500EC (\$299.95) is the same except the SCSI-2 controller has been omitted. Both models are designed in cases that attach directly to the bus expansion port on the A500 inside-car style. The case will handle either a 2.5-inch or a 3.5-inch full-height drive. Upgrades from the EC model to the LX model are available for \$79.95.

ICD's Trifecta 2000 LX (\$249.95) is an expansion card with the same options as the 500 series. Upgrades from their Trifecta 2000EC (\$199.95) are also available.

Along with DKB's Multistart II which allows A500, A600, and A2000 owners to install v2.0 and v1.3 Kickstart ROMs and switch between them, they were demonstrating their DKB 2632, a 112MB memory expansion for the Amiga 2500/030 and CBM A2630.



Crowd Control

The free seminars were well attended. During Jim Dionne's keynote address, the rear walls of the seminar were removed to make room for more people.

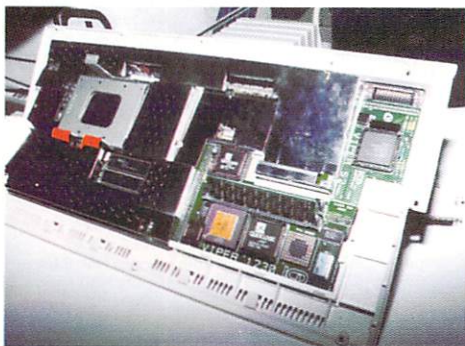
Graphic Boards and Systems

Centaur Development showcased their OpalVision 24-bit Graphics and Video system. They were demonstrating the release of their 2.0 software. *OpalPaint*, *OpalAnimATE*, and *Opal Hotkey* have all been enhanced.

OpalVision becomes even more flexible through the use of additional modules. The OpalVision Video Processor (required by each additional module) is a real-time framegrabber and genlock with chroma and luma keying. The OpalVision Video Suite is a multi-channel device for switching audio, video, and computer graphics in a wide array of formats. The OpalVision Video Scan Rate Converter converts PAL and NTSC to 31KHz non-interlaced, flicker-free display with infinite window time base correction.

Centaur announced a special offer at WOCA NY. The OpalVision support modules will be discounted for current owners. If you are a registered owner of OpalVision by the introduction of these modules, you will be able to purchase them directly from OpalVision at only \$695 each. Only one of each module per registered board will be sold at this special offer.

MicroPace used their booth to demonstrate products they distribute. ASDG was showing tapes of their MorphPlus software while the Visiona board was being used with TV Paint. The Visiona board is available in 85MHz, 110MHz, and 135MHz versions. The Visiona is expandable from 2MB to 4MB of VideoRAM. The Visiona on display was able running TV Paint to rework a Video Toaster image in real



A Case for GVP—GVP (right) displayed just some of their products with their AC Readers' Choice Award medals for 1992.

ICD's Viper 1230 (left) and the fast SCSI-2 V-2 install easily without opening the case.



time. There was no need to re-render the image as the software could rework areas and display them in full resolution. Not for everyone, the Visiona board starts at \$2999.95 and goes to \$5999.95. However, the demonstration was an impressive bit of graphics magic that will captivate professional users.

Although NewTek, Inc. was listed as an exhibitor, the NewTek booth location had a single Amiga and (as later discovered) one NewTek employee demonstrating the Video Toaster. The NewTek booth contained no NewTek signs, but was used almost entirely by the Toaster support publication, *Video Toaster User*. It was reported that NewTek was preparing for a very big presentation and release at the National Association of Broadcasters' event in Las Vegas (see the story in the next issue of AC).

Unfortunately, attendees interested in Video Toaster information were either directed to *Video Toaster User* personnel or to separate vendors throughout the show. Video Toaster Seminars originally scheduled by NewTek were introduced as *Video Toaster User* exclusive presentations and used to provide sneak previews of LightWave 3.0.

LightWave 3.0 will contain a host of new features and improvements on a product that has already become a classic in the Amiga community. New features include faster rendering times, new maps, a completely revised user interface, shadow mapping, lens flare, lens reflection, motion blur, and much more. However, a release date has not yet been announced.

Color Hand Scanning and More!

Migraph, Inc. introduced their hand color scanner with a scan ability of 262,144 colors. The Migraph CS-6000 Color Hand Scanner can scan color images quickly and accurately with exquisite detail—a good addition to any Amigan's tool chest for multimedia projects, presentations, pre-

press reviews, and desktop publishing projects. The CS-6000 has five scanning modes including a true 64-level greyscale mode and six scanning resolutions from 50-400 dpi. The CS-6000 includes software to scan and save color, monochrome, and greyscale images, support for the AGA chipset, and more. The CS-6000 will also work in conjunction with Migraph's remarkable OCR software.

Microdeal was exhibiting in the U.S. for the first time in two and a half years. They displayed their 16-bit sampler for the Amiga "Clarity 16." Clarity 16 gives 16-bit resolution samples for only \$249.95. Videomaster is their low-cost sound and video digitizer. Also their personal finance package "PFM+" was on display.

Soft-Logik Publishing Corporation, creators of *PageStream* page-layout software, were on hand to demonstrate their new art package, *Art Expression 1.0*. The illustration program features bending text on curves, warping text in shapes, and color blends. *TypeSmith 1.0* is Soft-Logik's professional outline font editor to create and edit PostScript Type 1, CompuGraphic Intellifont, and Soft-Logik format fonts. *PageStream 3.0*, was on display, featuring ARexx, AGA colors and gradient fills and more.

Gold Disk created a large area to demonstrate their entire line of personal productivity and creativity software. AGA support is available in *Professional Page 4.0*, the original Amiga page-layout software, *Professional Calc 2*, a spreadsheet for the Amiga, and *Pagesetter 3*, a low-cost page-layout, wordprocessing, and graphics system. Demonstrations of *VideoDirector* and *Professional Draw* were also well attended.

Premier Software was on hand with their unique brand of Amiga public domain and shareware collection by category and specific areas of interest. Disk contains the author's documentation, bright colored labels, and CLI and Workbench assistance.

Electric Theatre's *Keys to Music* is a music education package to complement standard instructional techniques for musical instruments. Volume I covers musical terms, names of the notes, accidentals, note values, and basic rhythm. They have promised additional volumes to teach users to write music. *Keys to Music* uses synthesized voice, graphics, text, and musical examples. Games and drills to enhance learning are provided throughout, and quizzes are given at the end of each lesson with the results stored in a database. It is a tool to teach school-age children and adults.

Computer Television Software?

Clearly one of the most impressive programs demonstrated at WOCA was SCALA's InfoChannel. The SCALA InfoChannel 400 is a powerful introduction to what SCALA officials have termed, Computer Television software. Broadcast-quality performance, full networking capabilities, remote access control to multiple sites, closed-circuit broadcast and SCALA presentation features are only a few of the facets of this revised system. InfoChannel has been a successful product in the European market, but SCALA has moved their main offices to the United States to advance the Amiga into U.S. corporations' media centers and communications networks.

SCALA, Inc. also demonstrated a new version of their multimedia program, SCALA MM200. SCALA MM210 uses professional graphics, animations, soundtracks, and special effects in multimedia presentations with full AGA chipset support.

One current project of AMUSE, the oldest and largest Amiga user group in New York City, is a weekly public access cable TV show on Manhattan and Paragon cable channel 69. The program is called Media Magic and is on Tuesdays at 4:00 PM and Thursdays at 11:00 PM.

•AC•

Companies Mentioned Exhibitors at WOCA NY'93

AMUSE, New York Amiga Users
151 1st Avenue, Suite 182
New York, NY 10003
(212) 460-8067
Inquiry #235

Centaur Development
P.O. Box 4400
Redondo Beach, CA 90279
(310) 542-2226
Fax (310) 542-9998
Inquiry #236

Commodore Business Machines,
Inc.
1200 Wilson Drive
West Chester, PA 19389
(215) 431-9100
Fax (215) 431-9465
Inquiry #237

Computer Basics, Inc.
1490 N. Hermitage Rd.
Hermitage, PA 16148
(800) 258-0533
Fax (412) 962-0279
Inquiry #238

Creative Equipment
5555 West Flagler Street
Miami, FL 33126
(305) 266-2800
Fax (305) 261-2544
Inquiry #239

DKB Software
50240 W. Pontiac Tr.
Wixom, MI 48393
(313) 960-8751
Fax (313) 960-8752
Inquiry #240

Electric Theatre
111 Holme Avenue, #2
Elkins Park, PA 19117
(215) 379-4538
Fax (215) 576-6143
Inquiry #241

Elite MicroComputers
138 Turner St.
Port Reading, NJ 07064
(908) 541-4214
Fax (908) 541-6348
Inquiry #242

Gold Disk
385 Van Ness #110
Torrance, CA 90501
(310) 320-5080
(310) 320-0298 FAX
Inquiry #243

Great Valley Products, Inc.
600 Clark Avenue
King of Prussia, PA 19460
(215) 337-8770
Fax (215) 337-9922
Inquiry #244

ICD, Incorporated
1220 Rock St
Rockford, IL 61101
(815) 968-8550 Sales
(815) 968-2228 Information
(815) 968-6888 FAX
Inquiry #245

Manta Computer + Software
115 Highway 35
Eatontown, NJ 07724
(908) 542-2955
FAX (908) 542-3654
Inquiry #246

Memory World
3070 Bristol Pike
Neshaminy Plaza #1, Ste. 213
Bensalem, PA 19020
(215) 244-7930
Fax (215) 244-7932
Inquiry #247

Microdeal
PO Box 68, St. Austell
Cornwall PL25 4YB, UK
(44) 726 68020
Fax (44) 726 69692
Inquiry #248

Micro-Pace, Inc.
109 South Duncan Road
Champaign, IL 61821
(217) 356-1884
(217) 356-1881
Inquiry #249

Migraph, Inc.
32700 Pacific Highway S. #12
Federal Way, WA 98003
(206) 838-4677
Fax (206) 838-4702
Inquiry #250

NewTek, Inc.
215 S.E. 8th Street
Topeka, KS 66603
(913) 231-0100
Fax (913) 231-0360
Inquiry #251

New York Commodore Interest
Group
P.O. Box 309
Oceanside, NY 11572
(516) 678-9631
Fax (516) 736-4747
Inquiry #252

Premier Software
P.O. Box 3782
Redwood City, CA 94064
(415) 593-1207
Inquiry #253

Queens Commodore Users
Group
P.O. Box 129
Queens, NY 11417
(718) 296-8286
Inquiry #254

SCALA, Inc.
12110 Sunset Hills Rd., Ste. 400
Reston, VA 22090
(703) 709-8042
Fax (703) 709-8282
Inquiry #255

Soft-Logik Publishing Corp.
11131 E. Pointe South Ct.
St. Louis, MO 63123
(314) 894-8608
Fax (314) 894-3280
Inquiry #256

Software Hut, Inc.
313 Henderson Drive
Sharon Hill, PA 19079
(215) 586-5702
Fax (215) 586-5706
Inquiry #257

Software Plus
5254 Merrick Road
Massapequa, NY 11758
(516) 795-1400
FAX (516) 798-7650
Inquiry #258

Utilities Unlimited
164 McCulloch Blvd.
Lake Howas, AZ 86403
(602) 680-9004
FAX (602) 680-9006
Inquiry #259

Whitestone USA
511-A Girard SE
Albuquerque, NM 87106
Inquiry #260



ROOMERS

by The Bandito

[These statements and projections presented in "Roomers" are rumors in the purest sense. The bits of information are gathered by a third-party source from whispers inside the industry. At press time, these rumors remain unconfirmed and are printed for entertainment value only. Accordingly, the staff and associates of Amazing Computing cannot be held responsible for the reports made in this column.]

Commodore Watch

Can't Commodore do something useful with the blank keys on an A1200? Sure, they need them for the international market, and it's cheaper to make just one keyboard, but it sure looks strange to have blank keys. How expensive could it be to make up some alternate key caps, and maybe changes to the system software to enable those key functions? It's bad enough that Commodore has taken the Speech device out of the latest system software. Oh, you hadn't heard about that? You may have wondered why the latest Amigas are mute. You can still use the Speech device if you happen to have a copy, but new Amiga buyers won't have it. Admittedly, it could sure use some updating; the vocal quality sounds rather quaint in these days of high-quality digitizing. But taking it out altogether seems silly; why remove a feature that doesn't cost you anything? Other computer makers are busy trying to *add* speech to their computers and software, while the Amiga has had it since the beginning—and now throws it away. Who makes these decisions, anyway? The

Bandito's starting to wonder if maybe there really are aliens from other planets living here...

With little fanfare, Commodore has introduced the long-awaited '030 AGA Amiga in Europe. The A4000/030 was released in a 4/80 configuration, and is said to be selling briskly. This computer is much more acceptable to the European market than the A4000. Why? The lower price tag, of course. Allowing for the exchange rate, the machine sells for less than \$2000 in Germany. The Bandito thinks that's great for the Germans, but when are we gonna see this machine across the Big Ditch? Still no official word from West Chester as of this writing. Unofficially, it seems that there's still quite a few A3000s gathering dust in the warehouse, and until Commodore clears those out we won't see any A4000/030s here. Of course, even at the blowout pricing the A3000s aren't disappearing as fast as Commodore hoped; it seems that people are more interested in buying A1200s or A4000s than old technology.

Anyway, the base configuration of the '030 AGA may change when it comes over here; we might see a bigger hard drive, for instance—perhaps that Seagate 120MB number that Commodore has purchased in big quantities. Of course, we can expect this machine to list for less than \$2000 if Commodore is thinking properly. At the same time, we may see a permanent price reduction for the A4000 and the A4000T in order to adjust to the market reality of cheap '040 machines from Apple. Apple's got a 68040 system base priced at less than \$2000, though it does use the crippled LC040

running at only 20MHz so Commodore should really go lower than that for an '030 system.

Yes, the computer hardware competition is tough, and it's getting tougher. You can expect Apple to lower prices frequently this year and next, which will produce additional pressure on Commodore's prices. Though Commodore has seemed very sluggish on price-cutting lately, perhaps due to its difficulty in making money on a regular basis. That's too bad; it would be a shame to see Commodore giving up any of its limited market share because of short-term cash considerations.

One way for Commodore to save some money is to use cheaper CPUs that are now available from Motorola. Obviously, Commodore used a 68020 in the A1200 instead of a 68030 in order to save some money. Will Commodore use a cheaper '040 in future models? Motorola makes a version without an FPU, and a version without an MMU. Actually, those chips are just full '040 chips that have a defect in the FPU or MMU, so Motorola just sells them for less. We could see an '040 Amiga for under \$2000 if Commodore wanted to. The lack of an MMU or an FPU would make little difference to most applications, though 3-D software is an important exception.

Will the price of the A4000 drop to match Apple's price cuts? The Bandito hears some whispers that Commodore plans to make some pricing moves this summer, perhaps to coincide with the introduction of the A4000/030 over here. With any luck, we may even see another PowerUp program or more bundled software deals. (There's a lot

of satisfied A1200 owners out there who are having fun with *DPaint IV AGA*, the Bandito hears.) Commodore's still trying to ramp up production of A1200s to meet demand, though, so we aren't going to see any price decreases until that problem is solved. Why drop the price if you're already selling all you can make?

Multimedia Machines

Apple has been trying real hard lately to step up the pace of new product introductions and make their technology better. In that vein, Apple has two "multimedia" machines coming out this spring, codenamed Tempest and Cyclone. They feature a DSP, lots of colors, hi-speed busses and ports, and of course high price tags. The gimmick is that they're supposed to be able to really move lots of data around fast for multimedia presentations and the like. (That's an important selling feature, considering how the current crop of Macs turns into molasses when you try to have sound and animation going at the same time. It's almost pathetic when you compare them to the Amiga.) But according to the Bandito's sources, even these new, specially designed multimedia hotrods can't animate anywhere near as fast as an A4000 can. So there, Apple. Maybe you'd better go back to the drawing board and try again.

On another front, the Bandito hears that Apple is planning a really, really cheap Macintosh for this Christmas season. The idea is to go for the low end of the home market by stripping out a lot of unnecessary features like SCSI ports to reduce the price to a bare minimum. The machine would have a 16MHz 68030, and would use any old VGA

monitor; the target price is \$750 list; with discounting, it would be close to \$600. And Apple plans to have this all over the mass market channel, along with a powerful ad campaign to move it off the shelves for the holiday season.

So it sounds as though the A1200 is going to be directly competing against this new Apple machine. Of course, our faithful A1200 will no doubt run rings around it in performance, but almost equally sure is the fact that Apple will market their machine that much better. The worst part of this news for Commodore is that it shows that Apple isn't planning to leave any part of the market alone. Nowhere to run to, nowhere to hide, Commodore. You're going to have to fight Apple and the DOS clones head on if you want to survive and thrive.

VIDIA™

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Amiga. And this is in peril now because of the shrinking shelf space for Amiga titles. What will Commodore do about this? Perhaps their new V.P. of U.S. marketing will have some answers.

Taking Stock in Commodore

Commodore stock has drifted lower in the past few months; it's now hovering between 5 and 6. And this is taking place while the stock market as a whole is booming. Obviously, there's not much hope among shareholders that Commodore will be reporting incredible profits and sales in the near future. And based on the last few quarterly reports from Commodore, who could blame them? Still, the Bandito has to wonder if this isn't a good time to buy, what with all the new machines and new technologies Commodore has coming out. With the economy turning up, there may be more opportunities to sell Amigas than ever before. If Commodore could string together some good quarterly results, the stock could do a rebound. Of course, it's a risk; but if it wasn't a risk, you couldn't make any money, now could you?

Dave Archambault, vice president of marketing for Commodore U.S., has left Commodore for Time-Warner. He's been with the company since the early days of the Amiga. As usual, there's no word on why he left. So now they'll have to get someone new to handle their marketing in the U.S. Does this mean there's going to be a shakeup in Commodore's marketing department? The sad fact is that unless

Although Commodore won't have the ultra-low end market to itself any more when this machine comes out, let's hope that by that time the A1200 price should be substantially lower. And who knows? Commodore may even have some slick marketing for it, too. Stranger things have happened.

One thing is clear, though: the pressure on Commodore will be greater in the future. Thankfully, Commodore now appears to be on track to move the Amiga technology ahead at the same rate as the rest of the industry is moving, thus staying ahead of the pack. However, technology by itself isn't enough. The Amiga still needs to maintain a substantial user base, because that encourages software development. The larger the user base, the more software we'll see for the

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Commodore's main office decides to spend money on the U.S. operation, we're not likely to see any major marketing spending coming out of Commodore. It's still a mystery to the Bandito why Commodore doesn't really seem to think that the U.S. market is worth spending money on. But for some reason, Commodore seems to be happy chasing the European market. Well, at least we're getting good hardware even if we don't get good marketing.

Have you noticed the stunning lack of national press attention for the new Amiga line? The added capabilities are, as we all know, the biggest improvements in the Amiga's architecture since the introduction of the Amiga in 1985. More than that, the graphics and animation capabilities of these new machines are far beyond what other personal computers are capable of, and make it possible to do some very impressive work at unprecedented low cost. Yet all we hear from the mainstream computer press or the mass media is the latest price reductions on Compaq computers, or how the new Macintosh line has models that sell for under \$2000. This PR failure must be laid squarely at Commodore's feet. Admittedly, many news outlets have a built-in bias against anything that's not IBM or Apple. Maybe these places don't want to hear from Commodore any more, after years of unexciting press releases. OK, then Commodore should spend some extra money to make some noise and break through this conspiracy of silence. Maybe stage a media event or two; that brings reporters in droves. The Bandito's advice: there's nothing like free food and drink to attract reporters.

Toaster Tales

The Bandito hears more news out of Topeka's secret labs, where the NewTekians toil around the clock in complete isolation from the real world, which doesn't start for several hundred miles when you're in Topeka. Still, occasional bits of information leak through their security net, and the Bandito's watchful informants are ready when it happens. Here's the latest word: Not only is NewTek hard at work on Toaster 3.0 software, the Bandito's spies hear that they even have a team working on Toaster 4.0 software. While Toaster 3.0 promises to add a lot of new features, especially to *Lightwave 3D*, the Toaster 4.0 effort is so major that they have to get started now because it will take them at least 18

months to generate many of the screen graphics you'll see on computers in the movie.

Meanwhile, the utter top secret project that NewTek's been working on is scheduled to see the light of day sometime this calendar year. It's been worked on for years, but just like the Toaster, NewTek won't release it until they feel it's ready. Unlike the Toaster, NewTek is keeping its corporate lip zipped about the project until it ships. All the Bandito can find out so far is that it's as revolutionary a device as the original Toaster; some NewTekers even think it's more incredible than that. With that level of enthusiasm, this widget must be capable of amazing feats. Perhaps it can even successfully market Amigas...

That's Entertainment

Looks like the Night of the Long Knives for entertainment software; three major publishers have recently cut their staff. The Bandito hears that SSI, the company that is best known these days for its Dungeons&Dragons role-playing games, has laid off 20% of their staff. Seems that sales weren't keeping up with the pace of their spending. And Microprose has laid off 20% of their staff, too, for similar reasons. Sierra/Dynamix has laid off about 70 people, including their VP of marketing. Seems that development costs for all of these publishers were spiraling upward far faster than sales. So the product development departments at all three took the biggest hit. There are now quite a few programmers, artists, and producers pounding the pavement.

Unfortunately, two of these publishers, SSI and Microprose, are great supporters of Amiga versions of their products. The

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
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months to complete it. And no, Toaster 3.0 won't ship on a CD-ROM, contrary to some scuttlebutt you may have heard. But there will be an amazing amount of floppy disks in the package, according to the Bandito's informers.

And the Video Toaster is collecting an impressive list of Hollywood names as users. The latest word is that Steven Spielberg's *Seaquest* TV series, debuting this fall, was pitched to NBC partly with the power of the Toaster handling many of the special effects, thereby saving a pretty penny from the usually high cost of producing this type of show. The Bandito even hears that Spielberg is so enamored of the Toaster that he used one to storyboard his upcoming megafeature *Jurassic Park*. Not only that, the Toaster was

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Bandito only hopes that these staff reductions won't affect their commitment to providing Amiga versions of their programs. And the Bandito is doubly hopeful that these companies will still be putting AGA support on their future development plans. (The Bandito certainly hopes that poor sales on Amiga titles didn't contribute to the problem, since that might mean a cutback in Amiga development. There's no indication that this is the case, though.)

This cutback doesn't seem to be industrywide; other entertainment software houses are expanding rapidly. And the Europeans, where we get our best arcade action, seem to be going as strong as ever.

Flying AGA

So when are we going to see some flight simulators that take advantage of AGA? The Bandito is tired of all those Clone-owners talking up how great their flight sims are. Let's see if somebody can show them what frame rate and resolution are like on a *real* computer. Oh, and don't forget the analog joystick support, OK? Can't have a real flight sim without it. Maybe Microprose will make some of their flight sims available for AGA; they seem to be supporting the Amiga very

strongly with their other software releases, and the Bandito hears that they have acquired more than one A4000. (As long as these new layoffs don't affect their Amiga product development, that is.) And now that *Wing Commander* has finally made it to the Amiga, maybe we'll see Origin's long-touted *Strike Commander* come out for AGA Amigas. This is supposed to be the ultimate killer flight sim, but it's been delayed for a couple of years now. The Bandito supposes that being on the cutting edge means you have to bleed once in a while.

The Animated AGA

We haven't really seen the full promise of AGA yet; the software that really takes advantage of its animation speed is still in the laboratories. Oh, sure, DPaint IV AGA does some nice things, but it also has its limitations. But the Bandito hears of more than one animation package that plans to take full advantage of the new capabilities, so that you really can do those full-screen, hires, HAM8 30 fps animations. Oh, and you can synchronize those with sound and music, too. Talk about desktop video; if you've got a reasonable amount of RAM, you'll be able to do several seconds of animation at a time. And often several seconds is enough for many purposes before you cut to a new scene. With a reasonably good VCR, one that works to plus or minus one frame, you could do some very nice animation work without spending six grand on a single frame VCR and an animation controller. This is where we really start getting into desktop video, when you don't need to spend megabucks on other equipment to do cool things on video. And if you think AGA is hot, wait until you see what Commodore's new AAA chipset will be able to do. The Bandito's spies who've seen the demos are still trying to find their socks.

3-D or Not 3-D?—That Is the Question

The Bandito notes the return under a new title of an old Amiga favorite in the 3-D arena. The new title for this software is *Will Vinton's Playmation*. You may remember it under its earlier title, *Animation: Apprentice* from Martin Hash. Now completely revamped, the program has been released for Windows and Macintosh as well as the Amiga. It's got some very high-powered features, such as spline-based modeling, ray-traced rendering, and animation, for a reasonable price tag. One of the neater tricks is what they call "skeleton" animation; you can create an internal skeleton for your 3-D model, and when it moves, the stuff on the exterior responds properly. It's a great tool

for animating creatures or people.

Too bad Playmation doesn't support Amiga 24-bit cards like the Firecracker or the Harlequin; you're limited to old-style HAM output unless you export to some other program. Playmation doesn't support the new AGA modes yet, either. Still, the ease of modeling alone may make this package worth it for true 3-D fans. You can always export objects to other Amiga programs, after all. And it's a rare 3-D artist who only has one 3-D program in her palette of tools.

•AC•

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THE VIDEO SLOT!

Last month we went over some of the advantages to the new AGA chipset in the newer Amiga models. This month we'll continue with more on AGA and in particular a look at *Deluxe Paint IV AGA*. Also we'll show a way to run NewTek's Video Toaster in a A3000, make a comparison with VGA to AGA, and examine the new *Art Department Professional*.

Deluxe Paint IV AGA

While Deluxe Paint is no doubt one of the best paint programs on any platform, a major hindrance had always been a lack of a larger palette. Before, 4,096 colors were available in lo-res/lo-res lace HAM mode but that certainly wasn't enough to create photo-realistic images and animations. All that has changed with the release of this special AGA version. Now the base palette is full 24-bit with options to use 262,000 or 256 colors at any one time. The first thing you'll notice when you boot up Deluxe Paint IV AGA is that you *can't* boot it up. The disks that come with the program are for installing the program on a hard drive or a floppy. While the hard drive installation is certainly painless,

the floppy installation is a bit unnecessary. Also new is the addition of a serial number and a message screen that displays your name as the program boots up. I certainly don't mind this addition and hope it will encourage only legal usage since Electronic Arts has been gracious enough to remove copy protection from all productivity software for several years now. Once the program begins you'll notice a much more advanced screen format requester. There are numerous screen modes to choose from and each contains technical information about that particular mode in a separate scrollable window. Different screen modes appear on different Amigas. It

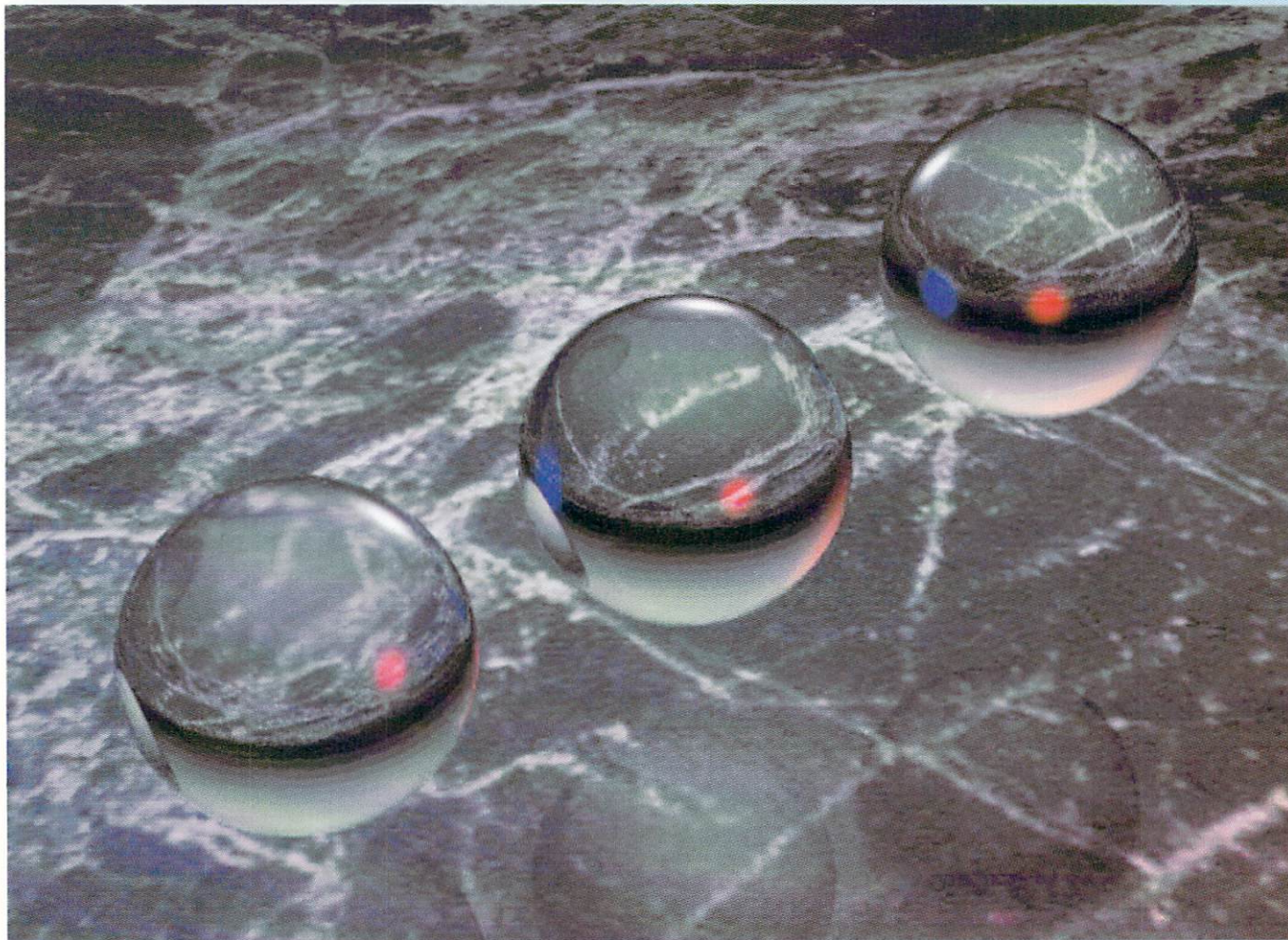


This HAM-8 image for a news program was created by the author in Lightwave 3D and then touched up in Deluxe Paint IV AGA.

depends on your chipset, version of operating system, and monitor setting. There is also a custom option that allows the user to type in his own screen dimensions for certain projects. Pattern matching is also supported in this new screen format requester, allowing filtering of all screen modes. For example you could type in a pattern that would display just the screens that support HAM mode.

There are numerous other features in this new version of Deluxe Paint. There is now support for the "Drawing Pad" and "DrawingBoard II" pressure-sensitive tablets from TriMedia. However, the more important news is the pressure option in Deluxe Paint IV AGA. Now you have the ability to apply more paint to your picture by merely applying more pressure with your drawing

ToasterPaint and load them right into Deluxe Paint for further work. But you would only be able to save it as a standard Amiga format file such as HAM, HAM8, or 256 color; it would need to be converted to 24-bit in an external program before being able to be read back into *ToasterPaint*. There are two pictures that accompany this article. One is a logo I designed for our interview show "NewsReel" at Westerly Cable. After rendering it in *Lightwave* I was able to load it into *ToasterPaint*, save it out as a 24-bit file, and then load it into Deluxe Paint AGA in HAM8 mode for touch up. The other image with the marble and balls I created in *Imagine*. Again, it was saved as a 24-bit file and loaded into Deluxe Paint HAM8 mode. Both images are shown as a final HAM8 rendering.



tablet stylus. You can combine this with the translucency option to determine how much color is applied at full pressure. Not only that but you can adjust the brush size so that the harder you press when you draw, the wider the line becomes. The program now supports direct reading of IFF24 24-bit files as well as PBM files from the PC version of Deluxe Paint. The program does not save 24-bit files, somewhat of a disadvantage. Also, it would be nice to support importation of other 256-color formats such as GIF or 24-bit formats like TIFF. It's important to note that the program reads 24-bit IFFs but does not retain full 24-bit information; it merely converts the 24-bit file to whatever display mode you happen to be in. For example, right now you can save images directly out of the Video Toaster's

Other improvements include 256-color animations as well as animbrushes. The included player utility now supports animation in any resolution including HAM8. Support is now included for productivity and super hi-res as well as all standard graphic modes. Full-screen morphs are available as long as you have enough memory. The Color Mixer has a new scale option. Basically it converts old IFF RGB values (0-15) to the new RGB8 values (0-255). Applcon and AppMenu support have been added. Applcon creates an additional icon on the Workbench screen while Deluxe Paint is running. You can load a picture by merely moving its icon to the Applcon. You can also get right back to Deluxe Paint by double-clicking the Applcon. Pretty handy. The Amiga's clipboard is now

used in the new version. Instead of cutting out a brush and saving it to disk for another application, you need only cut it and then go to the other application and paste it. The clipboard is a memory space that is used as a buffer for graphics, or any other kind of file, and as long as the programs you are using support it, data transfer is effortless.

While there are not a lot of new features as far as drawing tools, no doubt to be eventually provided by Deluxe Paint V, the addition of new 256/250,000 color modes and much higher resolutions makes it an even more powerful program than it already is. The amount of colors and resolution allows creation of truly realistic graphics, especially for video work. Where HAM mode was once pixelized and grainy, it is now smooth, sharp, and colorful. Keep in mind that even 32-color images are better looking because you now have 16 million colors to choose from as opposed to 4096.

Better Than a PC?

Some of the resolutions and color schemes of the new AGA chipset are very similar to IBM PC's VGA display so that it only seems natural to compare them, especially since the Amiga's modes using Deluxe Paint IV AGA, or other paint programs, offer distinct advantages. First, on the PC you need a graphics card for just about any type of graphics beyond 16 colors, so there is an added cost. While many PC graphic cards offer 256 colors, most don't offer a large base palette. With AGA you can use any of 16 million colors, essentially a 24-bit palette. PC cards usually offer 8-bit, 16-bit, or 18-bit for a palette to choose from. This translates to not-as-smooth color gradients and more banding in spreads. PC's hi-color modes are typically 32,000 to 64,000 colors in most resolutions; these are easily outdone by AGA's 256,000-color mode. Now there are full 24-bit cards for the PC at high resolutions and while they are less expensive than a similar Amiga board, they still are an added expense and not built in to the computer. Which brings up another point: the AGA chipset is as fast as the Amiga's processor and chip RAM, which is pretty fast. PC cards need to have an accelerator built in to the display card to move pixels around. You may have heard the term "local bus." Well this is what has been developed in the PC world to avoid the problem. The computer's architecture has a direct slot to the CPU for a graphics display card. This allows it to do what the Amiga does naturally, run graphics at the speed of the CPU. Again, this takes a specially designed card as well as a specific brand of computer. Add to this the dilemma that a local bus standard has yet to be decided upon. Now while any computer

can be upgraded with any type of display board, the comparisons are almost moot. However, when you gauge it by out-of-the-box graphics power, the AGA Amiga's is ahead of the game.

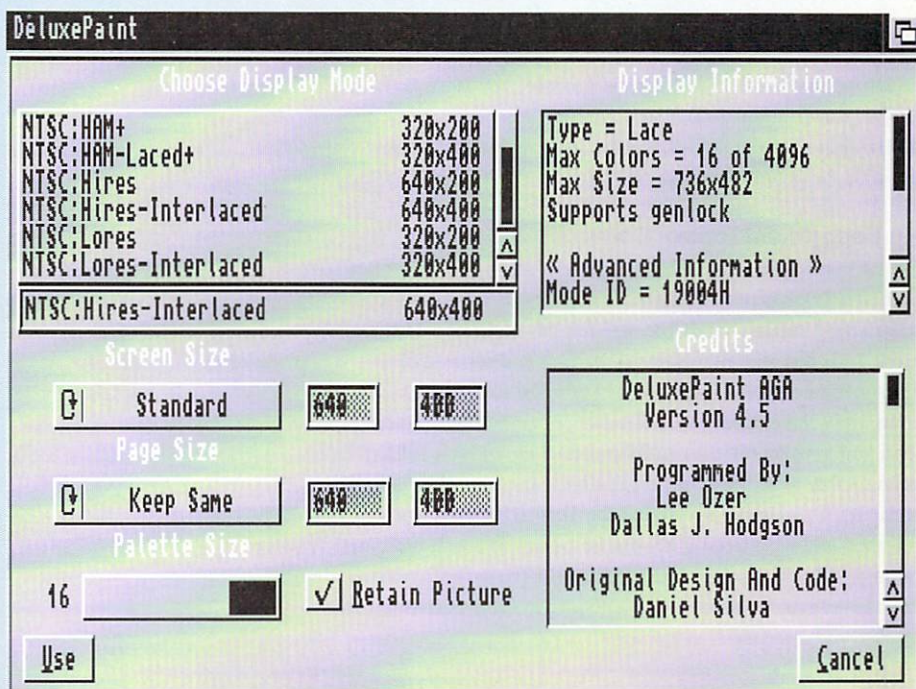
Toaster In a A3000

Believe it or not, there has never been a better time to buy a A3000. Because of the debut of the 4000, the 3000 has been drastically reduced by most dealers who mainly want to free up their remaining inventory. While not as expandable as the 2000 and lacking the AGA components of the 4000, it's still a great option if all you want to do is run a Toaster system. But getting a Video Toaster to work in a 3000 has been a daunting process. First of all when Commodore released the 3000, it was found that the Toaster would not physically fit inside. Many blamed Commodore for not conforming to the shape of the Video Toaster. Actually it was not Commodore's fault. Commodore is in the business of making computers; it is up to the third-party hardware makers to conform to the latest version. But NewTek didn't budge. The design of the Toaster has remained the same; this may change since the only computer it legally works in, the 2000, has been discontinued. The second problem involved the Toaster's incompatibility with the Enhanced Chip Set. This problem NewTek did fix as of Version 2.0 of the Video Toaster software. But the physical incompatibility has remained. There are various options such as external boxes that can house the Toaster and hook up to the 3000 but they are an added expense. The easiest route is to alter the computer itself. This is demonstrated on "A3000/TOASTER!" a new videotape from L & N Productions (P.O. Box 391, Brownsville, CA 95919) that takes the user step by step in installing a Toaster in a 3000.

There are essentially two ways of getting a Toaster to fit inside and that is to either cut away part of the computer in the back to let the connectors through or to relocate Toaster BNC connector #1. Both are a little tricky and both may void your Toaster and/or 3000 warranty. The pamphlet as well as the video go step by step in a very detailed way over exactly how to modify the units. There is even a place near each step in the pamphlet that allows you to check

Opposite Page: Ray-traced in Imagine, this HAM-8 image was saved out of the new AGA version of Deluxe Paint.

Right: Deluxe Paint IV AGA's new screen mode requester allows new options including custom screen creation.



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off an operation as soon as you've done it. There is a listing of all tools needed and lots of hints along the way. The tape proceeds slowly enough that you can follow in real-time what you have to do. Now you don't really need to purchase a tape to figure out how to cut a hole in the back of your Amiga, your first option. However, the second method—to relocate the first BNC connector—is a little more involved. This method is a little more aesthetically pleasing and actually may be the best route. The tape was produced with a Toaster using minimal effects and character generation. All in all it's an impressive product and a must-have for anyone who wants to add a Toaster to the 3000. These methods may even work for the 4000 but the Toaster software is not quite ready for the new chips in the 4000. Let's hope that the new version (3.0) will correct this.

Art Department Toaster Compatible

A continued compatibility problem with the Toaster has been that NewTek has not let any other software companies incorporate the loading and saving of ToasterFrames—until now. Art Department 2.3 is out and allows direct reading and writing of ToasterFrames even if you don't have a Toaster present. Other companies have decoded the ToasterFrame and figured out how to load and save on their own without the help of NewTek but have been unable to acquire the permission to incorporate it into their software. I remember reviewing the Toaster when it was first released and wondered if it would blossom as a unit that programmers could develop for or just remain a separate entity. While there have been many programs that enhance it, such as creating your

own effects, it has remained pretty much controlled by NewTek and an impressive, but close-ended product. There still is nothing else like it, but that position may change in the coming years. It would be nice to see what third-party creative teams could come up with by programming the hardware directly and rendering to the framebuffer. ToasterFrame compatibility in Art Department may mean that NewTek is loosening up a bit. But I respect and admire them for wanting to protect their investment and insure quality control.

Speaking of quality, NewTek could do no wrong with an association with ASDG the creators of AdPro. Recently, Perry Kivolowitz, president of ASDG, let me know that the company is surging ahead with improvements to Art Department Pro. He mentioned many enhancements and there will be more to come. The new version includes a direct link to Deluxe Paint IV AGA so that AdPro can read/write the main or swap screen on DPaint as well as any animation frame. This invites numerous possibilities. There is also support for doing the same with *OpalPaint*, part of the *OpalVision* 24-bit board package.

There is a new and improved FRED with over 50 pre-written ARexx programs. File Sentry is a new option that allows an image, such as one being rendered in a 3-D program, to automatically be processed with an AdPro effect as it's being created. An undo command has been incorporated; it's a temp buffer that allows instant access to a swap screen. There is now a much anticipated Anim loader. Not only that but there is support for the Anim-8 format, designed by ASDG no less. The format is optimized for the AGA Amigas and produces animations that run 2.5 times faster than standard Anim-5 files. There is much more including a Firecracker loader, new dithering routines, rotate and twirl, PICT support, multi-layer composites, and conversion of ARexx programs into operators. Art Department has always been a powerful program and now it's even more so, as the staff at ASDG continue to excel. Contact the company directly for upgrade information.

That about wraps it up for this month. I'm currently using the new versions of *Aladdin 4D* and *Caligari 24*, which feature many new options including direct HAM8 mode support for spectacular images. Watch for a closer look in future columns. With the addition of new Amigas and new modes, the software advances will be heating up in the coming months. Stay tuned.

•AC•

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The Numbers Game

Product Pricing on the Amiga

by Rick Manasa

Once in a while we authors get letters from readers questioning pricing policies of Amiga hardware and software companies. Why can't company ABC make their word processor as powerful as *MicroSoft Word*? Why does XYZ's Doohickey cost so much more than a comparable product on the IBM? Most recently, Barry Wais wrote a letter that I felt deserved some in-depth investigation. The following is an excerpt from Barry's letter:

"...I know you'll be interested in this new entry from Creative Labs, as reported in the February issue of *Home & Studio Recording Magazine*. I know it's for the IBM, but look at the price!! Compare this with the AD516 from SunRize Industries. Creative Labs even offers the E-mu module at "about \$250." What does this say about the *One-Stop Music Shop*?

"No way I'd switch to the IBM from my Amiga but *damn* this pricing is attractive! The disparity is so great I wonder if it really has much to do with the 'installed user base'...or if the Amiga products are just making a ton of profit for their companies."

The hardware in question is the Sound Blaster 16 ASP 16-bit audio board, that records and plays back in stereo at up to 44.1kHz, includes a 20-voice FM synthesizer, a 10-channel stereo mixer, and a microphone, all at a list price of \$349.95. You can upgrade to the Wave Blaster board, which is basically a Proteus on a card for somewhere around \$250 more. My first reaction was disbelief and dismay—disbelief that such a seemingly powerful combination could be possible at that price, and dismay that maybe it was possible, but not on the Amiga. The following is an excerpt from my letter to Barry:

"...I am as flabbergasted as you are over the pricing of the Sound Blaster 16 ASP. I'm forwarding copies of your letter and enclosure to Todor Fay of Blue Ribbon Soundworks and Anthony Wood of SunRize Industries for their information and comments. I'll keep you posted on their responses.

"I can't claim to know what goes on in the minds of those who make Amiga products when it comes to pricing. The little I do know of the Amiga marketplace, however, suggests that no one is getting rich here. Most companies are either very small, or have products across the PC platforms to help keep the ship afloat. Numbers are a sad but true reality, I'm afraid..."

I received calls from Todor Fay of Blue Ribbon and Dean Tucker of SunRize the following week. Both understood the concerns of readers like Barry. Seeing such a wide disparity in pricing is bound to raise some questions. Here's what they had to say.

Todor pointed out that the consumer couldn't buy and use the sound engine alone, so the "around \$250" price was somewhat misleading. You need to piggy-back the Proteus board onto the Sound Blaster board, bringing the quoted pricing more in line with the *One-Stop Music Shop*. The

One-Stop Music Shop comes with a ton of software as well, including a complete editor for the sound engine.

Dean Tucker was very specific about the difference between the H&SR magazine blurb and the AD516. The Sound Blaster was two tracks, while the AD516 is an 8-track device. There is no SMPTE reader on the Sound Blaster, nor is there any software. The AD516 comes with *Studio 16*, which is really the heart of the product and the primary focus of the design staff at SunRize. Dean felt it would be better to compare the AD516 with *Sound Tools* from DigiDesigns

**Both Dean and Todor
agreed that hardware
pricing is a numbers game.**

for the Mac (\$3,495) or 56K from Turtle Beach for the IBM (\$1,495), a couple of the more professional-level products on the other platforms. Comparing the AD516 with the Sound Blaster is a case of comparing apples and oranges.

Both Dean and Todor agreed that hardware pricing is a numbers game. Manufacturing costs on 100,000 pieces are going to be considerably less per piece than the per-piece cost of manufacturing 1000 pieces. Both agreed that no one is getting fat off the Amiga community. The only way to make some of that "big money" you've been hearing about is to mass produce items for a larger group of consumers. A larger market means you can charge less per item and still make a good profit on the number of items sold. This is why

many Amiga companies port their products over to the Mac and IBM. It helps defray the cost of developing all the cool stuff we see on the Amiga.

So what does this mean for the Amiga user? Will we always be paying "exorbitant" prices for "comparable" products on other platforms? Not really. Most pricing differences are understandable, given the comparative size of the Amiga market. And while this reality might be a bitter pill to swallow, we can't really blame the manufacturers. They are as subject to the numbers game as we are. Funny, but if we follow this numbers logic out to the edge, the AD516 would be priced higher than *Sound Tools*, because there are fewer Amigas than Macs! A similar logic holds true for the pricing of the One-Stop Music Shop. I'm just thankful we have dedicated companies producing top quality stuff on the Amiga platform, at any price.

I'll leave you with my final comments from my letter to Barry:

"Many Amiga users find themselves forced into bridgeboards or clones, just to keep competitive in their work. They don't quit the Amiga, but some software isn't available here or is just plain better over there. I take comfort, however, in knowing it cuts both ways. I have many professional associates who can't understand why they can't plug a Toaster card into their Quadras or Gateway 486's; nor can they explain why the screen refreshes in their DTP programs are so damn slow. It's fun watching them seriously consider an Amiga for things that their computer can't do as well or at all!"

•AC•

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```

"GETNUMBER 'JPEG Quality' 32 1 100"
num=ADPRO_RESULT
OKAY2 'BOOST Quality?'
code=RC
IF code>0 THEN type='RAW' num BOOST
IF code=0 THEN type='RAW' num
END
OTHERWISE type='RAW'
END
/* Set these variables as env vars for next time! */
CALL SETENV(convformat,saverformat)
CALL SETENV(savetype,type)
END /* of first setting environment variables */

IF cl=0 THEN SAVE todir||filename||'.||saverformat type
cs=RC
EXIT cl+cs
END
ELSE EXIT 10

/* Find out if ADPro is running...*/
Locate_ADPro:

IF -SHOW('P','ADPro') THEN DO
/*
** NOTE! I have lots of RAM. Fix the MAXMEM=# to your RAM prefs
** (the maximum amt of RAM you want ADPro to use (in bytes)).
*/
ADDRESS COMMAND "RUN ADPRO:ADPRO BEHIND MAXMEM=14000000"
ADDRESS COMMAND WAITFORPORT 'ADPro'
IF RC=0 THEN RETURN 1
ELSE RETURN 0
END
ELSE RETURN 1

```

Listing Three

```

/*
** BatchConvert.dopus BatchConvert utility for Directory Opus
** Gets selected files in source window and BatchConverts them
** in ADPro one at a time and saves them to the destination
** window in user chosen format. Appends a mnemonic qualifier
** at the end to show format: ".iff", ".tiff", ".gif", ".jpg", etc.
** Calls BatchConvert.rexx to do the conversion work in ADPro.
** (c) 1993 by Merrill Callaway
*/

TRACE OFF
OPTIONS RESULTS

/* load the rexxarplib.library */
/* for setting and removing environment variables */
libs.1='rexxarplib.library'

IF -SHOW('L',libs.1) THEN CALL ADDLIB(libs.1,0,-30,0)
IF -SHOW('L',libs.1) THEN EXIT 20

SIGNAL ON ERROR

/* Send commands to: Directory Opus ARexx port. */
ADDRESS 'DOPUS.1'

/* ask about error interrupt */
Request "Error Detection Reminder? Cancel=Auto"
IF RESULT=1 THEN errdet=1;ELSE errdet=0

/* get the active window */
STATUS 3
window=RESULT
IF window THEN destwind=0;ELSE destwind=1

/* set the path name to active window path */
STATUS 13 window

```

```

path=RESULT

/* set the path name to the destination window */
STATUS 13 destwind
destpath=RESULT

/* Get rid of path(s) with a space in it! */
IF LEFT(path,8) = 'Ram Disk' THEN DO
PARSE UPPER VAR path ':rest'
path='RAM:||||rest'
END

IF LEFT(destpath,8) = 'Ram Disk' THEN DO
PARSE UPPER VAR destpath ':drest'
destpath='RAM:||||drest'
END

/* Put all selected file names into a long string */
getselectedfiles
file=RESULT

/* NONE */ /* UNcomment to deselect all files that were selected */

/*
** Extract the individual file names
** one at a time and read them into an
** array for passing to convert routine
** later.
*/

n=0
DO WHILE file--''
PARSE UPPER VAR file fname.n file
n=n+1
END

/* Process the list in ADPro */

Enum=1
DO i=0 TO n-1
CALL BatchConvert.rexx path||fname.i destpath

IF RESULT>5 THEN DO
IF errdet=1 THEN DO
DopusToFront
rescan destwind
"TOPTXT ERROR PROCESSING FILE "i+1
Request "Error Detected"
IF RESULT=0 THEN SIGNAL ERROR
END
Enum=Enum+1
END
END

ADDRESS 'ADPro' ADPro_Exit /* Does not change current address */

dopustofront
rescan destwind
"TOPTXT 'n' files selected for conversion. 'Enum-1' failed to convert."

/* get rid of the environment vars */
CALL SETENV(convformat)
CALL SETENV(savetype)

EXIT 0

ERROR:
CALL SETENV(convformat)
CALL SETENV(savetype)
ADDRESS 'DOPUS.1',
"TOPTXT 'n' files selected for conversion. 'Enum' failed to convert."
ADDRESS 'ADPro' ADPro_Exit
EXIT 20

```

•AC•

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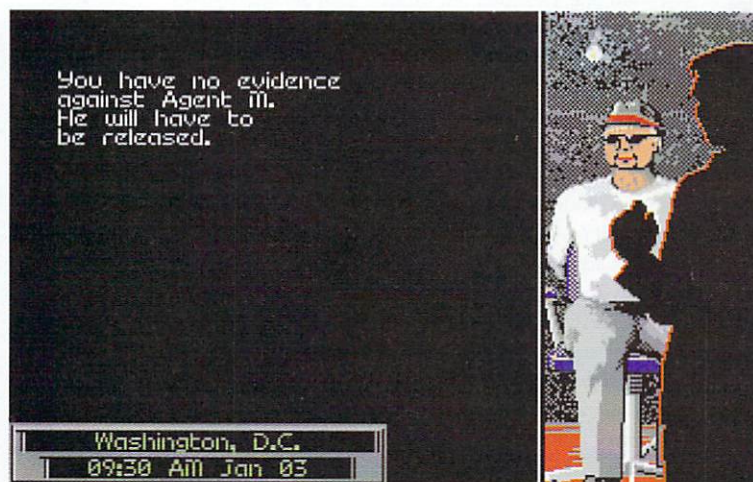
DIVERSIONS

Covert Action

by Jeff James

For gamers tired of slaying dragons, zapping aliens, or dogfighting pixelated opponents ad nauseam, Microprose comes to the rescue with yet another novel game idea. From the fertile mind of master game designer Sid Meier comes *Covert Action* (\$49.95), an engaging game of modern espionage.

Covert Action begins with the player choosing Max (or Maxine) Remington and assigning him/her a codename. The difficulty level selection is next, ranging from a "local disturbance" to a "global crisis." Finally, you can customize your secret agent's skills in four areas: combat, driving, cryptography, or electronics. After creating your character, you're off to see the CIA chief, who bears a striking resemblance to a jovial Mikhail Gorbachev, to receive your mission orders. Depending on the difficulty level of your mission, your goal can range from nixing the plans of local crime bosses, thwarting the schemes of international terrorist groups, or safeguarding the security of the free world.



enemy hideouts, or travel to airports for flight to dozens of cities around the world. Although the game is basic, a surprising amount of thought has been put into this menuing system, making it a snap to guide your agent about in his quest.

To help you succeed in your mission, *Covert Action* utilizes a simple menu system that lists your current playing options. Unfortunately, mouse support isn't included; you'll have to make your way through the menu system using either your keyboard or a joystick plugged into the second

mouse port. Using this menu system, you can guide your agent around the city in which he is currently located to interrogate suspects, spy on

Four portions of the game depart from the menu system and offer alternative control methods. If you break into an enemy organization's headquarters, the



view shifts to an overhead view, showing your agent and the contents of the room he currently occupies. You won't want to send your agent into hostile territory unarmed: you can fix your agent up with body armor, three types of grenades, electronic "bugs," a motion detector, even a gas mask and a electronic safe cracking device. Using the cursor keys or joystick, you guide you agent from room to room, shooting enemies and searching for clues. The three other unique game segments—electronics, for placing car tracing devices and telephone wire-tapping; code breaking, for deciphering coded messages; and the weakest of the lot, the car chase screen, where an overhead view shows your car and those of your opponent racing through city streets—all offer more action/puzzle-oriented play that the menu-based gaming system does. Only by mastering the menu-based control system and the four distinct playing segments can a player expect to complete the mission.

If reviewing this game made me feel a little like James Bond, the audio-visual portion of the game evoked images of Maxwell Smart talking into one of his walkie-talkie shoes. While the gameplay is fresh and innovative, the graphics and sound in Covert Action leave much to be desired. Most of the game screens are rendered in EGA-quality 16-color graphics, while sound support is rather scarce. The Bond-like intro music was well-done; however, most other musical bits are few and far between. Other foibles include the lack of mouse

support and cumbersome copy protection. The manual-based copy protection is a chore, requiring players to match horribly drawn screen images of suspected criminals with their sketched counterparts in the manual. On the positive side, the game does support hard-drive installation for the three game disks, and runs fine on accelerated Amigas running AmigaDOS 2.0.

Although the graphics, sound, and playing interface in Covert Action may cry for improvement, the basic game is a solid one. Designer Sid Meier has infused the game with an incredible amount of detail, making the hunt for terrorists, drug smugglers, and other social malcontents more enjoyable than the mediocre graphics and sound would initially indicate. While flawed, Covert Action serves admirably as a vehicle to satisfy the whimsical desire of many gamers, including me, who wish to lead the life of a dashing, dangerous secret agent who always manages to save his country, get the girl, and has a witty sense of humor to boot.

Covert Action
Microprose
180 Lakefront Drive
Hunt Valley, MD 21030
301-771-1151
Inquiry #223

Shadow of the Beast III

by Jeff James

The beast is back. The final installment in Psygnosis' Shadow of the Beast trilogy, *Shadow of the Beast III* (SOB3) gives players a chance to end the evil reign of Maletoth, the nefarious mastermind behind Beast I & Beast II. With such successful predecessors, SOB3 has quite a tradition to live up to. For the most part, the game succeeds. The smoothly scrolling backgrounds, mildly difficult puzzles, and top-notch sound and graphics are what you'd expect from Psygnosis.

Once past the opening animation, the game proper begins. In SOB3, you assume the role of Aarbron, the poor bloke who was the humanoid hero in Beast I and the semi-human adventurer in Beast II. Now that he has regained his humanity, you must now guide this intrepid explorer through the four increasingly difficult game levels in SOB3. First of these is the Forest of Zeakros, followed by Fort Dourmoor, the Caves of Bidhur, and the final level, Nosthomak. In each of these levels, you'll have to retrieve a special, magical item. Only after you've retrieved each of these items will you be able to finally confront Maletoth and put an end to his diabolical plans.

Moving Aarbron about is straightforward and closely follows the control scheme used in Beast I & II. A joystick is used, while the fire button causes him to pitch shurikens at any on-screen enemies. Gold and new

weapons can be collected by simply running over them, while the F1 key allows you to quickly scroll through a list of carried items. Several types of beasts will try to thwart Aarbron in his quest, including goo-spitting purple orbs, mindlessly malevolent humanoids, who explode into masses of flying limbs when killed, and a horde of other violent critters.

Although SOB3 is primarily a side-scrolling "run, jump, and kill everything that moves" game, SOB3 introduces a variety of mind-bending puzzles to keep players mentally alert. For example, passing through a locked entryway in the second level (Fort Dourmoor) is made much easier if the player attaches a loose wheel to a broken battering ram and pushes the wheeled door-buster into position to smash open the door. The addition of these puzzles helps widen the appeal of SOB3 somewhat; fans of puzzle games—who also happen to have a quick set of reflexes—may find something to like in this game.

While the addition of mental puzzles to the standard arcade mix is welcome, the game suffers from a number of minor problems. Chief among these is the sluggish disk-access. From loading new levels to displaying the "game over" sequence, many of the actions in SOB3 require an inordinate amount of disk access. This problem is exacerbated by the fact that SOB3—like most other Psygnosis products—is not hard-drive installable. The game does work on any Amiga with at least 512K, including accelerated machines such as the A3000. And although the introductory animation, occupying an entire game disk, can be bypassed, I was disappointed by the quality of the animation. Compared to the excellent introductory anima-

Curse of Enchantia

by Henning Valenkamp

tions found in other Psygnosis products—such as *Armour-Geddon* and *Beast II*—the one used in *SOB3* comes up a trifle short. This gripe is admittedly a minor complaint, but should disappoint fans of Psygnosis' lengthy and well-crafted game intros.

Perhaps the biggest obstacle that Psygnosis faced when creating *SOB3* wasn't the creation of the game itself. Indeed, living up to the standards set by the first two *Beast* games is possibly a far greater challenge. Although somewhat disappointing as a stand-alone product, *SOB3* does serve as a solid finale to possibly the most popular Amiga game trilogy in recent memory.

Shadow of the Beast III
Psygnosis
 29 St. Mary's Court
 Brookline, MA 02146
 Inquiry #224

In the tradition of *King's Quest* (KQ), *Curse of Enchantia* from Core Design Ltd, a British developer, thrusts you into a fairy-tale world on an exciting adventure. An evil albeit nameless witch seeks eternal youth via a spell whose secret ingredient is a young boy. Since she couldn't find any in *Enchantia*, she tricked her fellow witches into helping her open a magic portal to Earth on a deserted field. Thus she waited until one day a boy named Brad was playing baseball there. It's no surprise that she zapped him to *Enchantia*, and shackled him up in her dungeon. Here the adventure begins.

Don't let the uninspired premise fool you; there's a deep, engaging story hiding underneath. In your travels through *Enchantia* to stop the evil witch, you'll visit over 150 locations, interact with offbeat characters,

and solve exciting puzzles. Although in the fairy-tale genre, the story also parodies fairy-tales and adventure games. Plus it cleverly mixes in things from our own culture. For instance, you'll meet up with an insectoid rock band called "The Slugs." There's much humor and plenty of surprises waiting to be found.

A versatile interface supporting mouse, joystick, or keyboard controls the game, and you can change the active input device whenever you want. It's as simple as pressing the M, J, or K keys. Aside from moving Brad around, you'll need to use the menus which are similar to those of KQ5, but more comprehensive. They consist of strips of up to ten icons across the top or bottom of the screen.

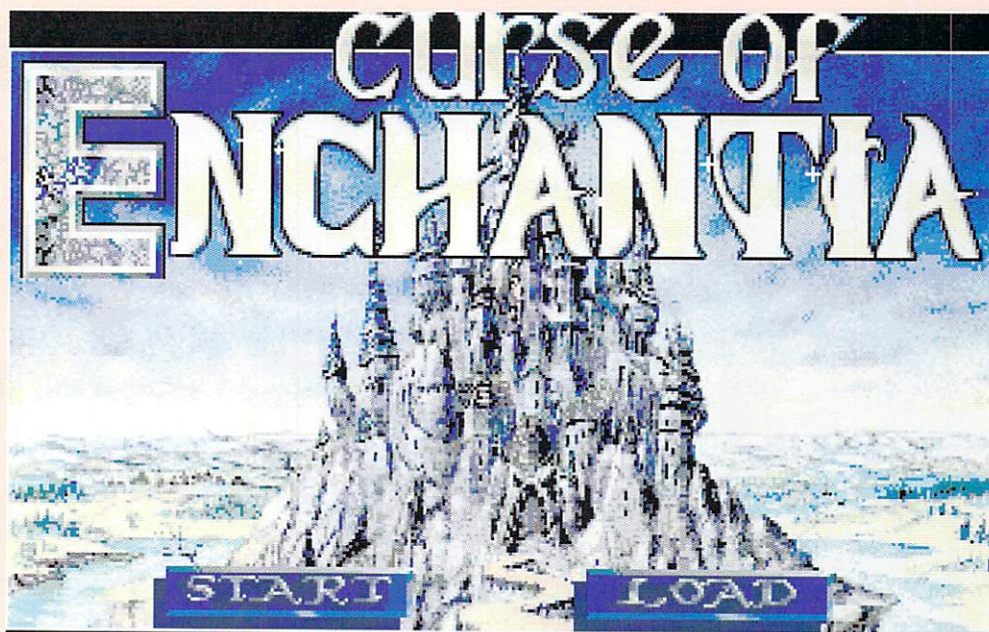
From the menus, you can view your inventory, pick up objects, manipulate them, look around, talk to other characters, fight, jump over things, use the disk functions, control the sound, and see your score. Choosing the manipulate icon brings up another set of icons for unlocking, inserting, pushing/pulling, ingesting, wearing, throwing, giving, and fastening. Most puzzles involve manipulat-

ing objects a certain way. The disk menu allows you to load/save/delete games in progress, view a saved game directory, and format a data disk.

Unfortunately, games must be saved in the bootblock of a custom disk created with the format icon instead of more convenient AmigaDOS files. The only thing missing is a way to drop items since you can carry just ten at a time, but this doesn't seem to be necessary anyway. Furthermore, contrary to what the manual claims, the sound icon does nothing.

The complete lack of any on-screen text sets *Enchantia* apart from nearly all other adventures. You won't get any descriptions of where you are or what's around you. Other characters relate information by way of "thought bubbles" with pictures in them as in cartoons. This novel approach takes some getting used to, ultimately making things more interesting.

Being an adventure game, *Enchantia* has you solving a host of logical puzzles ranging from no-brainers to challenging, but not mind-bendingly difficult, exercises. They're very linear, so you must solve them in more or



Enchantia will leave you pleasantly surprised. Thanks to Core's use of the Amiga's animation hardware, speed is no problem, despite Enchantia's huge size. All of the flawless animation zips right along. The characters—some helpful, some not—are depicted in a whimsical cartoon style.

Typical of many European games, all of Enchantia's six disks are copy-protected, so forget about hard disk installation. I feel cheated, as the IBM version has this feature. Amiga users should get the same consideration. Speaking of lack of consideration, the game uses only one floppy drive, but disk swapping is minimal. Enchantia runs on all Amigas except the A1200/A4000. AmigaDOS 3.0 may be the culprit, as the AGA chips are supposedly downward-compatible with the older chip sets. Reportedly, many Amiga games are incompatible with these new machines. A professional-looking manual complements the disks.

Three other bugs are evident besides the nonfunctioning sound icon. The screen, while in NTSC mode, appears slightly low on the

monitor—a problem among a number of European games converted from PAL to NTSC. When the game prompts you for disk#1, it really means disk#2. And when using the mouse mode, the right button more often than not refuses to cancel the menu bar.

The irritations and technical glitches are disappointing, although not to the extent of ruining the game. All the elements of a top-notch adventure are here: great graphics, sound, and gameplay. If the problems are fixed, Enchantia will soar from excellent to unstoppable.

Curse of Enchantia
Core Design Limited
Tradewinds House, 69/71A
Ashbourne Road
Derby, DE22 3FS, England
tel (0332) 297797
fax (0332) 381511
Inquiry #225

less the correct order to get through the game successfully. It's interesting to note that Brad seems immortal, for he survives squashings from maces, shocks from electric eels, among other punishments.

Depicted in exquisite detail, the world of Enchantia comes alive on your screen. The graphics, while superb, have that fuzzy, almost washed out quality that often results from the 256-color IBM to 32-color Amiga conversion. Sound is absolutely stellar. A wide variety of digitized sounds accompany scenes, such as the dripping of water and the crashing of rocks. Even your one-word conversations with other characters are digitized, and they sometimes talk back!

If you're familiar with the agonizingly slow animation of many adventures on unaccelerated machines,

Quest for Glory II: Trial by Fire

by Henning Valenkamp

After rescuing the town of Spielburg from the infamous Baba Yaga, you decide to take a vacation in the beautiful city of Shapeir along with your friends Abdulla Doo, Shameen, and Shema. Alas, a hero's work is never done, for you stumble into another adventure upon arrival. In Raseir, Shapeir's sister city, the Emir has mysteriously disappeared, leaving his evil brother to wreak havoc. It's up to you to save Raseir before a similarly nasty fate befalls Shapeir. That's the scenario of *Trial by Fire* (TF), the second chapter in the Quest for Glory saga.

As with its predecessor, *So You Want To Be A Hero* (SYWTBAH), TF is an adventure/role-playing hybrid. You start off by either importing a character from SYWTBAH or creating one from scratch. Characters are made in the usual role-playing style. Choose a fighter, magic user, or thief, then spread the available points over his statistics: abilities (strength, intelligence, etc.) and skills (weapon use, magic, etc.). As you gain experience, your skills and abilities increase. You'll also need to make sure you have enough food, water, and rest. Since problems are solved differently depending upon your character's class, the game has a three-time replay value.

What's role-playing without combat? Fortunately, TF's combat system is elegant and easy to use. When a monster



gets too close, the normal screen disappears, replaced by a combat screen showing you and your opponent on a field. Simply attack and defend with the numeric keypad keys, or cast spells if you can do magic. Enemies refuse to surrender or flee, so it's do or die. Forget about weapon selection, fighting multiple enemies in protracted battles, and sophisticated strategies—this isn't hardcore AD&D.

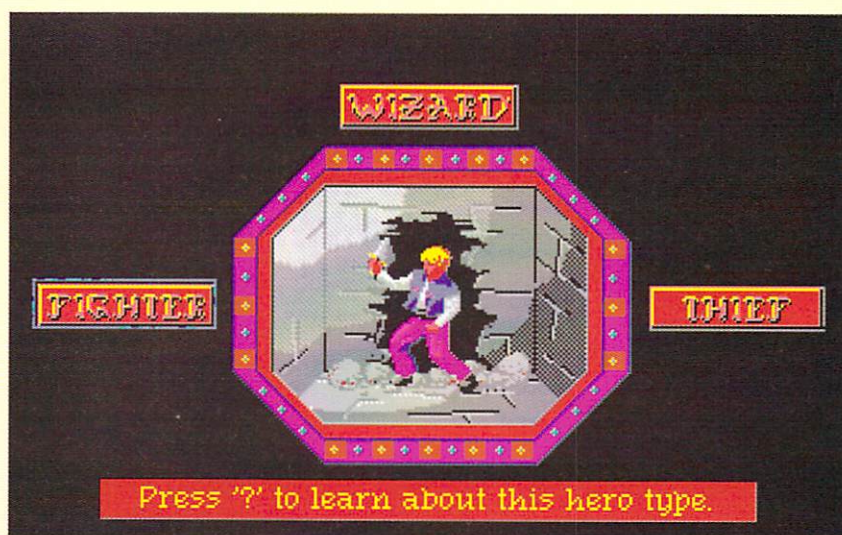
As for the adventure aspect, TF improves on the success of SYWTBAH. You'll find a larger world to explore packed with more difficult puzzles. The multiple solutions to most puzzles offsets increased difficulty—a welcome feature. Happily, TF retains the witty humor of its predecessor, boosting the fun factor. My only real complaint lies in Shapeir. The city streets form a maze that's needlessly long. Navigating it becomes tedious, but the included map is a real help.

The last Sierra game based on the SCI interpreter, TF lacks the improvements introduced with *King's Quest 5*. The traditional menus, type-in text parser, and 16-color EGA graphics are all there. Its excellent animation and sound won't disappoint. I particularly like the way you can get information about your surroundings by holding down the Shift key, pointing to an object, and clicking it.

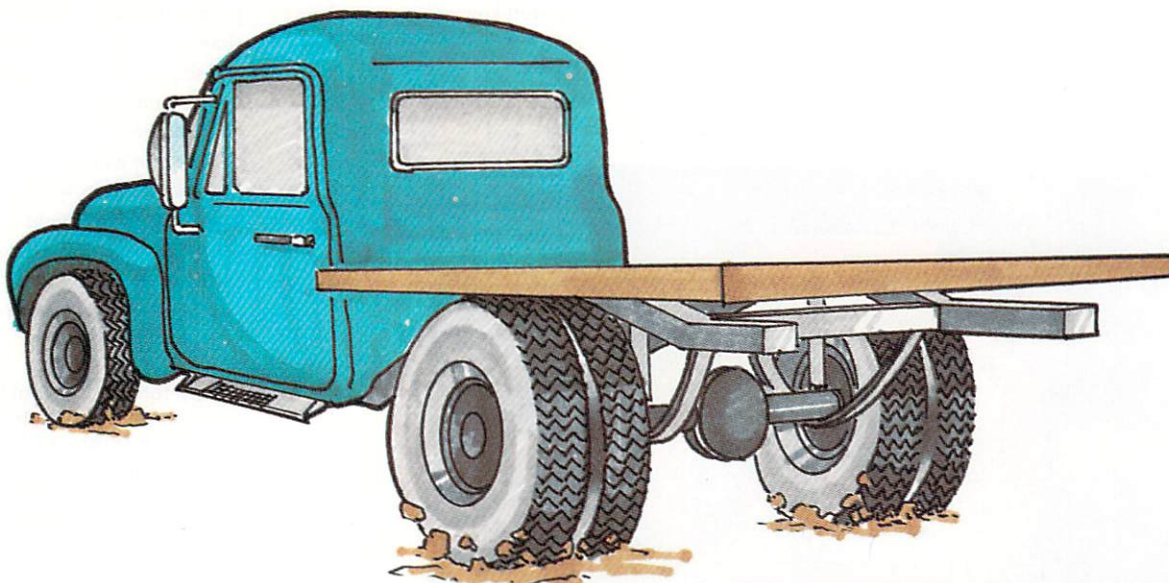
TF is a big game (eight disks), so unless you have an accelerated Amiga with a hard drive, the sluggish gameplay and disk loading will soon have you pulling out your hair in frustration. It works with any 1MB RAM Amiga, and multitasks effortlessly. A map, technical manual, and adventure guide round out the package. The tongue-in-cheek guide primarily talks about the character classes, magic spells, and the locals you'll encounter.

It's often difficult to mix adventure and role-playing into a successful game, but TF makes the grade with its well-written story plus just the right amount of combat. If your hardware is up to snuff, TF is highly recommended, especially if you're a Sierra devotee.

Quest for Glory II: Trial by Fire
Sierra On-Line, Inc.
P.O. Box 485
Coarsegold, CA 93614
(800) 326-6654
Inquiry #226



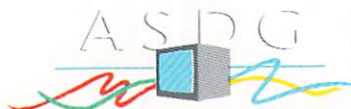
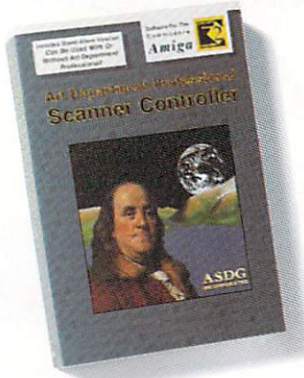
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Amazing Computing's Readers' Choice Awards Official Entry Ballot



Vote Today!

Amazing Computing's readers choice award election is open to all readers of AC throughout the world. This is your opportunity to promote the companies and products you believe are providing the most value and service to the Amiga community. This is your means to demonstrate your appreciation for spectacular products offered and superior service rendered.

First, register your ballot by supplying your name, address, and Amiga model number in the space provided. This is necessary to be certain the Amiga community obtains a fair and impartial vote. No duplicate entries please. Photocopies of this ballot are acceptable; however, we must limit votes to one ballot per Amiga user.

Second, list your favorite Amiga programs and Amiga vendors in the space provided the least on the bottom. You are limited to four entries per category (except CDTV). Be legible; if we cannot read your entry, we will not be able to count it.

Third, give us your thoughts. At the end of the ballot is a space for your comments, suggestions, concerns, and ideas for the Amiga market. Please take a moment to address the Amiga issues that are important to you. Fourth, mail your ballot to:

Vote Amiga '93
c/o PIM Publications, Inc.
P.O. Box 2140
Fall River, MA 02722-2140

Don't delay! In order to be counted, all ballots must be postmarked by August 28, 1993. Don't miss this chance to reward the products and vendors who have supplied you with the tools to do more with your Amiga. Look for the results of AC's Reader Choice Awards in either the November or December issue of *Amazing Computing* and the Winter '93 edition of AC's *GUIDE To The Commodore Amiga*.

Please complete the following. Your vote cannot be counted if you do not register here.

Name _____

Address _____

City _____

State _____ ZIP _____

Country _____

Please, one vote per Amiga user.

(please give model number, ie. A500)

Software:

Listed below are 18 categories of software. Choose your favorite software package from each category. List up to four (4) packages from each category. If you list more than one (1) product, place them in order of importance with the best on top, second in second place, etc. Each category will be marked separately from the others so be sure to grade your choices separately.

Completion is not required! You need not fill in every category or even every line in each category. Please vote in those areas where you have strong commitments. Your vote will be as important as you make it.

Painting or Drawing	1. _____	2. _____	3. _____	4. _____
Animation	1. _____	2. _____	3. _____	4. _____
3-D	1. _____	2. _____	3. _____	4. _____
CAD (Computer Aided Design)	1. _____	2. _____	3. _____	4. _____
Desktop Video	1. _____	2. _____	3. _____	4. _____
Image Processing	1. _____	2. _____	3. _____	4. _____
Telecommunications	1. _____	2. _____	3. _____	4. _____
Presentation Programs	1. _____	2. _____	3. _____	4. _____
Text Editors (commercial or public domain)	1. _____	2. _____	3. _____	4. _____
Authoring Systems	1. _____	2. _____	3. _____	4. _____
Utilities (backup, DOS conversion, print, miscellaneous)	1. _____	2. _____	3. _____	4. _____
Language/Programming	1. _____	2. _____	3. _____	4. _____
Education	1. _____	2. _____	3. _____	4. _____
Word Processing	1. _____	2. _____	3. _____	4. _____
Desktop Publishing Accessories (fonts, clip art, etc.)	1. _____	2. _____	3. _____	4. _____
Music (MIDI, digitizers, editor/librarians, etc.)	1. _____	2. _____	3. _____	4. _____
Business Packages (spreadsheets, database, finance, etc.)	1. _____	2. _____	3. _____	4. _____

Please Note: Photocopies of this ballot are acceptable, however only one ballot per person will be counted.

Write in:

No ballot would be complete without a write-in section. We have included this area in case we have missed a section of the Amiga market you feel should be included or you have comments or suggestions that you would like to address to the Amiga developer community. Please make your comments, suggestions, and/or choices below. Your thoughts are important to the entire Amiga industry. Take a moment and express yourself and attach an added sheet if necessary.

Although CDTV titles may sometimes be the same as their regular Amiga counterparts, there is also a wide variety of entirely new titles. For the sake of space, we have offered one master category for your favorite CDTV applications. Please list them below with your favorite as number 1 and so on, until you have listed all the titles for which you wish to cast a ballot.

1.	_____
2.	_____
3.	_____
4.	_____
5.	_____
6.	_____
7.	_____
8.	_____
9.	_____
10.	_____

Service:	
1. This is an opportunity to grade Amiga companies on their service. List up to four (4) companies and grade them on these areas: responsiveness to customer's needs, user registration process, awareness of problems, courtesy, tech support, upgrade availability, and availability of assistance (for tech support, questions, orders, etc.).	1. 2. 3. 4.
Best Manufacturer:	1. 2. 3. 4.
Best Technical Support:	1. 2. 3. 4.

<p>Hard Drive Controllers</p> <hr/> <hr/> <hr/> <hr/> <p>1. 2. 3. 4.</p>	<p>Optical/Tape Drives</p> <hr/> <hr/> <hr/> <hr/> <p>1. 2. 3. 4.</p>	<p>Emulators for other Computers</p> <hr/> <hr/> <hr/> <hr/> <p>1. 2. 3. 4.</p>	<p>CD-ROM</p> <hr/> <hr/> <hr/> <hr/> <p>1. 2. 3. 4.</p>	<p>Memory Expansion</p> <hr/> <hr/> <hr/> <hr/> <p>1. 2. 3. 4.</p>	<p>Laser Printers</p> <hr/> <hr/> <hr/> <hr/> <p>1. 2. 3. 4.</p>	<p>Dot Matrix or Ink Jet Printers</p> <hr/> <hr/> <hr/> <hr/> <p>1. 2. 3. 4.</p>
<p>Accelerators</p> <hr/> <hr/> <hr/> <hr/> <p>1. 2. 3. 4.</p>	<p>Video Switcher Cards</p> <hr/> <hr/> <hr/> <hr/> <p>1. 2. 3. 4.</p>	<p>Video Hardware Accessories</p> <hr/> <hr/> <hr/> <hr/> <p>1. 2. 3. 4.</p>	<p>Scanners/Digitizers</p> <hr/> <hr/> <hr/> <hr/> <p>1. 2. 3. 4.</p>	<p>Graphics Cards</p> <hr/> <hr/> <hr/> <hr/> <p>1. 2. 3. 4.</p>		

Hardware: Listed below are 12 categories of hardware. Choose your favorite piece of hardware from each category. List up to four (4) items from each category. (Be sure to list the manufacturer with the product.) If you list more than one (1) product, place them in order of importance with the best on top, second in second place, etc. Each category will be marked separately from the others so be sure to grade your choices separately. **Completion is not required!** You need not fill in every category or even every line in each category. Please vote in those areas where you have strong commitments. Your vote will be as important as you make it.



care issues and in taking responsibility for their own well-being. In the February 1, 1993, issue of *U.S. News & World Report*, the parents of Lorenzo Odono, whose story is told in the movie "Lorenzo's Oil," were interviewed by Rita Rubin (page 68). When asked what to do first after receiving grim medical news, they responded by saying,

Never assume a pessimistic prognosis is right.After you've recovered from your shock, go to the medical library, call up the National Institutes of Health (1-301-496-4000) and say, "Where can I learn about this disorder?" Then learn as much as you can.

The Amiga is a versatile and capable computer. Equipped with a modem and appropriate software, it can access commercial telecommunications services and the unbelievably large amount of information they provide. As this paper illustrates, there will be times when you will require a program that does not have an Amiga version. With other computers, you may have no alternative other than to purchase a whole new system. With the Amiga and its high quality, reasonably-priced emulation hardware, you have a reasonable chance of being able to run the program. This is a real advantage of owning an Amiga and a powerful argument for investing in hardware capable of emulating other operating systems.

Finally, data-filled CD ROMs are becoming less expensive and one day may be competitive in price with the cost of frequent modem access. Even if the data files are in a format that can be read by an Amiga, their search routines are computer specific and cannot be expected to run without software or hardware emulation. The Amiga may, therefore, need to become more compatible with CD ROMs intended for other computer platforms. The proliferation of new CD titles over the past two years makes this a pressing problem.

Having the very latest information is important and the power and versatility of the Amiga can help you get it. All you need is an Amiga, a modem, telecommunications software, and the desire to know.

•AC•

Please Write to:
Dr. Michael Tobin
c/o Amazing Computing
P.O. Box 2140
Fall River, MA 02722-2140

If you are a member of CompuServe—and there are many advantages of becoming a member—you can carry out a literature search at your own convenience without having to rely on anyone else. You can use an Amiga without needing to emulate some other computer and you can use the pleasant PaperChase interface. Searching MEDLINE through PaperChase via CompuServe is an excellent choice for CompuServe users.

If you are not a member of CompuServe and have no desire to join, you could sign with PaperChase directly. The interface is PaperChase's own and there is the claim of more effective searches of medical literature published prior to 1985. An unenhanced Amiga works fine. You pay only for what you use and there is no monthly fee or minimum. Special pricing options are available for institutions.

Once you get "hooked" on electronic databases and experience the impact the information in them can have on patient care, you may very well decide to explore a commercial service such as Dialog or BRS. In view of the large number of databases and services open to you with this option, the cost may be very reasonable indeed. Special plans for institutions and individuals may be available and should obviously be explored prior to signing on. For example, if you find that you are consulting MEDLINE frequently and you already have a CD ROM drive connected to your Amiga, you might want to consider Dialog's offer of a CD ROM subscription, with monthly updates, for \$1895 a year. Finally, there really is no substitute for getting right to the source. And for medical databases, this means connecting to the Elhill computer at the National Library of Medicine. MEDLINE, which contains abstracts of 3600 journals, annuals, etc., is only one of approximately 40 databases on the MEDLARS system. Performing a MEDLINE search via the National Library of Medicine is the least costly alternative and, unsurprisingly, the NLM computers are updated first before any other leased copies are made available.

To search MEDLINE, you either have to learn the command language or use one of the Grateful Med interface programs. To use the Mac version, you can attach a modem to the external serial connector of an AMAXII+ internal card and then install and use the software just as you would for a Mac Plus. I have no experience with Grateful Med and the Emplant board. To use the IBM version on your Amiga, you'll need one of the bridgeboard cards as well as a serial card or a multi-function card with a serial port.

Final Thoughts

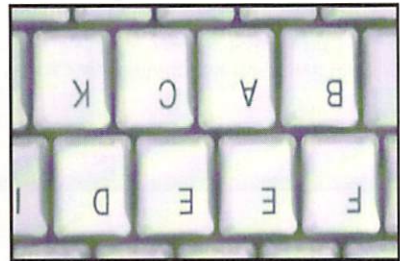
In the process of asking colleagues and friends to review this paper, I found that people are increasingly concerned about health



Feedback

Letters to the Editor

edited by Paul Larivière



CD-ROM Incompatibility

In 1987 I was interested in buying a computer so a friend introduced me to the Amiga. I decided to purchase the A500 and have never regretted it. Later I purchased an external hard drive, 2MB memory, and eventually upgraded to a Supra auto-boot drive with 4MB of memory. However, I wanted a system where all expansion would be internal, so August 1992 I bought an A3000T with an Xtecc CD-ROM drive and other peripherals. At that time the CD-ROM market seemed to be going well for the CDTV with nearly two dozen CDs available. Also, I thought the CDs would work on any A3000T since both the CDTV and my computer are Amigas. Not true. Since I am running under WB 2.1 and most CDs were developed to work only under WB 1.3 and with specialized chips on the CDTV, they don't work with my Amiga. For instance, with the American Vista Multimedia U.S. Atlas CD, nearly all of its graphics are not compatible with WB 2.1 or above. In addition, the *American Heritage Dictionary* by Xiphias does not work on my system. I contacted Xiphias and others and asked if their CDs were to be upgraded to run under the newer operating system. The answer is no for the following reasons:

1. Lack of sales from the CDTV
2. Not enough resources to invest in such a small market; 3. Even with the low cost of development/upgrade, the high cost of packaging and marketing a product compared to the small sales expected is not worth the upgrade; 4. Better markets in the IBM-compatible and Macintosh areas; 5. Even though the Amiga is an extremely friendly platform to develop on, the return on investments is not worth the venture; 6. Not much support from Commodore-

Jeffrey A. Peterson
Hanover, MD

of to an American company?

It appears that most companies are going for the short-term capital gains instead of investing in the long-term. I don't blame these companies for it is just business and they have to feed their families like everyone else. However, a smart American business would take the opportunity to invest in the Amiga platform just as the Japanese have invested in the VCR. Will the Amiga CD-ROM market go to an overseas company instead

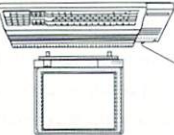
Switching from one ROM to another is very possible when using any of the several units available. Please see the "switchers" listing in the Miscellaneous Hardware section of AC's GUIDE To The Commodore Amiga. An actual CDTV unit can be incorporated into your Amiga system using Parnet. Please see the Parnet article in the October 1992 issue of *Amazing Computing*. CDTV, like CD-I, has yet to enjoy the acceptance of MS-DOS and Macintosh CD-ROM. It is interesting to note that both Mac and MS-DOS have been available for some time and they are only now enjoying some level of success.

For all the money Phillips has poured into CD-I and for all the practicality of CDTV,

neither system has yet won big with consumers. There is little doubt that CD-ROM is the future of our industry. There is also little doubt that a multimedia platform will be the key. With these points in mind, we wonder why CDTV has yet to rise above its competition.

With over a dozen additional formats of CD-ROM for the consumer to choose, it remains to be seen which format will win. We know it will be the format that offers the consumer a desired application and that may be nothing more than a smart application yet to be produced. Whatever the winner, one thing will be certain. The best of CDTV's abilities will be there.—Editor.

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Requirements:

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Do you want to share files with your Amigas plus PCs and Macs? Share peripherals such as large storage devices, laser printers and other output devices, faxes, and video equipment? Easily manage large files? Access your computer and files from home or work? Restrict file access or quickly backup large files? Then we have the connection you need.

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Circle 160 on Reader Service card.

drives he may have a 'partner' system where two drives have the same SCSI address but different Logical Unit Numbers, and he may have only formatted LUN 0. The only technician at IOMEGA who knows Amiga computers seems to be Mark Leslie. Mark has a BBS (his own, not IOMEGA's) at 801-771-0074 and has said he'd be glad to answer questions left there for him."

Pete Guerin of Seattle, WA, writes with a hardware problem on his SubSystem from Practical Peripherals, when used with a Commodore 2090 Hard Disk Controller. He comments, "[I] believe the problem lies somewhere in the /SLAVE, /OWN, /CFGIN, and /CFGOUT bus control signals on the A2000 bus. From what I've been told, Practical Peripherals went out of business a long time ago, so I can't call them up.

"I also own a California Access Bodega Bay, and when I place the 2090 card in it, the 2090 functions properly. So I thought I would call up California Access and ask them for a set of schematics to see how they handled the aforementioned bus control lines. Much to my despair, I found California Access's phone line disconnected, and Directory Assistance had no listing for them throughout that area code. I'm hoping you or one of your readers can help me locate where California Access can be reached, if they're still around. Or maybe one of them could send me a copy of the schematics, if they happened to order a set before California Access went out of business." How about it readers, if you can help, let me know. I'll forward any information to Mr. Guerin.

Rick Geren of Oakville, ON, Canada, writes with a couple of problems and some upgrade information. He notes that *ProWrite* documents with inserted graphics print very slowly, taking 20 to 30 minutes, on his recently purchased Okidata PS-830 postscript printer. The same graphic will print from *PageStream* in about a minute. He suspects the design of the Postscript driver that comes with *ProWrite* version 3.2.2. New Horizons tech support recommended that he choose the HP_Laserjet preferences driver instead of the Workbench 2.1 Postscript driver. He notes that that suggestion made no difference.

Rick also owns X-CAD Designer, has used it for some time, and has several drawings he created with the program that represent many hours of work. As it turns out, the program, which is dongle-protected, just recently refused to function, instead it is asking the user to insert the dongle in mouse port 1 or 2, even though the dongle has already been installed. He suspects the dongle is defective, but since the company who published X-CAD Designer is no longer in business, he would like to know how to salvage use of the program. As I recall, the dongle is rather simply designed, and shouldn't be prone to failure, but as they say, "These things happen." It is possible that the mouse port has recently failed, causing the dongle to fail to function. Before assuming the dongle has failed, check to see that the mouse port operates properly when using a joystick or other peripheral, or have the port checked by a technician for proper operation. If you have a suggestion for Mr. Geren, pass it along.

Frank Papaeliou of Pocatello, ID, is looking for a printer driver for his Xerox 4045 laser printer. He knows that it can be defaulted to use a Diablo 630 driver but that is a daisy-wheel printer driver, which prints only text. Has anyone been successful with this printer

and any other available preferences driver, or do you know of a place to acquire a custom driver for this printer?

J. Lewis of Morrisonville, NY, is trying to connect the DSS 8 sound module to an A1000. He built a breaker box to accommodate the different line inputs of the A1000 parallel port, which he inserts between the DSS module and the parallel port. However, using the same test setup as for his A2000, the display on the A1000 screen is extremely noisy (even with the line filter on) and very sensitive to the input level. In fact, it appears unstable, giving short stretches of undistorted sampling, then bursts of noise, typically manifested as severe clipping. He has tried the hookup on to A1000s with similar results. Does anyone have any suggestions as to how Mr. Lewis might solve his problem?

Paul Larrivée forwarded copies of letters to me from Norman Wersan that were sent to The Right Answers Group. Mr. Wersan had a couple of technical support questions for the company, and in his first letter, he even included the *Director2* software registration, which should have verified to the company that he is a legitimate owner of the software. After receiving no response from the company, he wrote to Mr. Larrivée, who also sent copies of Mr. Wersan's original letters with the idea that he would publish the letters along with their response in "Feedback." He gave a deadline of the next issue, but the technical support personnel at The Right Answers Group never responded. It would appear that they are not interested in providing support for their registered users, so maybe those of you who are using the *Director2* could answer a couple of questions for Mr. Wersan. He wants to use the DCTV for digitizing and also to put graphics and animations on video tape. He has not been able to get his animations recorded, although he has tried to follow the procedures of converting each animation frame to a DCTV picture and run them in *Deluxe Paint*. If you have been able to integrate DCTV animations into a Director script, and have some suggestions for Mr. Wersan, please pass them along.

He has also occasionally received a "can't find buffer" problem if he starts with an IFF picture and then an animation. After that, there is usually no trouble mixing animations and pictures. He is also having intermittent problems with the dissolve transition. After the dissolve, for a few seconds, the screen showed a frame from the previous animation. He also wondered about system resources if he did all of his graphics in high resolution. If you can answer any of these questions about the *Director2*, pass the information along.

That's all for this month. If you have any workarounds or bugs to report, or if you know of any upgrades to commercial software, you may notify me by writing to:

John Steiner c/o Amazing Computing Box 2140 Fall River, MA 02722

or leave E-Mail to John Steiner on Portal 73075,1735 on CompuServe Internet mail can be sent to

John_Steiner@cup.portal.com

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AC's TECH

AC's TECH, Vol. 2, No. 1

Highlights Include:

"Build Your Own SCSI Interface" by Paul Harker
 "CAD Application Design—Part III" by Forest Arnold
 "Implementing an ARexx Interface in Your C Program" by David Blackwell
 "The Amiga and the MIDI Hardware Specification" by James Cook
 —and more!

AC's TECH, Vol. 2, No. 2

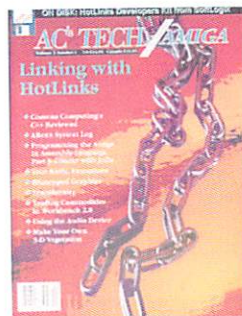
Highlights Include:

"Programming the Amiga in Assembly Language Part 2", by Forest Arnold
 "Implementing an ARexx Interface in Your C Program, Part 2", by David Blackwell
 "Iterated functions Systems for Amiga Computer Graphics", by Laura Morrison
 "MenuScript", creating professional looking menus easily and quickly, by David Ossorio
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AC's TECH, Vol. 2, No. 3

Highlights Include:

"HighSpeed Pascal," by Dabid Czaya.
 "PCX Graphics," by Gary L. Fait.
 "Programming the Amiga's GUI in C—Part 5," by Paul Castonguay,
 "CAD Application Design Part 4," by Forest W. Arnold.
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AC's TECH, Vol. 2, No. 4

Highlights Include:

"In Search of the Lost Windows," by Phil Burke
 "No Mousing Around," hide that annoying mouse pointer with this great program, by Jeff Dickson.
 "The Joy of Sets," by Jim Olinger
 "Quarterback 5.0," a review by Merrill Callaway.

AC's TECH, Vol. 3, No. 1

Highlights Include:

"Comeau Computing's C++," A review of this great new C compiler by Forest Arnold.
 "Programming the Amiga in Assembly Language Part 5," by William Nee
 "Make Your Own 3D Vegetation," Laura Morrison shows how to use iterated functions to create 3D trees and plants.
 PLUS! The HotLinks Developer's Toolkit ON-DISK!

AC's TECH, Vol. 3, No. 2

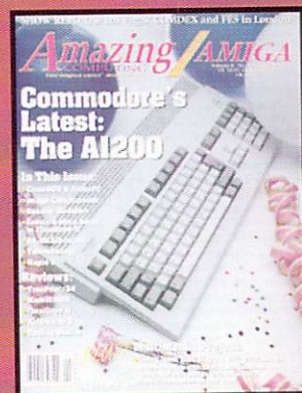
Highlights Include:

"Ole," A super AMOS programming challenge by Thomas J. Eshelman.
 "Programming the Amiga in Assembly Language Part 6," Part 6 in the continuing series on Assembly Language programming, by William Nee.
 "Assembly Language & Computer Simulations," A simulation showing how a virus can spread between cells, by William P. Nee.
 "Wrapped Up with True BASIC," Text and graphics wrapping modules in True BASIC, by Dr. Roy M. Nuzzo.
 PLUS! All the great code, and Olé ON DISK!

What have you been missing? Have you missed information on how to add ports to your Amiga for under \$70, how to work around *DeluxePaint's* lack of HAM support, how to deal with service bureaus, or how to put your Super 8 films on video tape, along with Amiga graphics? Do you know the differences among the big three DTP programs for the Amiga? Does the ARexx interface still puzzle you? Do you know when it's better to you use the CLI? Would you like to know how to go about publishing a newsletter? Do you take full advantage of your RAMdisk? Have you yet to install an IBM mouse to work with your bridgeboard? Do you know there's an alternative to high-cost word processors? Do you still struggle through your directories?

Or if you're a programmer or technical type, do you understand how to add 512K RAM to your 1MB A500 for a cost of only \$30? Or how to program the Amiga's GUI in C? Would you like the instructions for building your own variable rapid-fire joystick or a 256-grayscale SCSI interface for your Amiga? Do you use easy routines for performing floppy access without the aid of the operating system? How much do you really understand about ray tracing? **The answers to these questions and others can be found in AMAZING COMPUTING and AC's TECH.**

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The Fred Fish Collection

Below is a listing of the latest additions to the Fred Fish Collection. This expanding library of freely redistributable software is the work of Amiga pioneer and award winning software anthologist, Fred Fish. For a complete list of all AC, AMICUS, and Fred Fish Disks, cataloged and cross-referenced for your convenience, please consult the current *AC's Guide To The Commodore Amiga* available at your local Amazing Dealer.

Fred Fish Disk 824

AlphMan A programmer tool which may help you to create an intuition or gadttools user interface. It opens a window with a gadget for each keyboard key. If you press a key the dependent gadget will be disabled. So you may check whether a key has been used or not. Requires AmigaDOS 2.04 or higher. Version 1.00, freeware, binary only. Author: Hans-Peter Guenther

GadgetTest A programming example of how to create and handle all of the types of the new AmigaDOS 2.04 gadgets. Requires AmigaDOS 2.04 or higher. This is version 0.01, includes source. Author: Hans-Peter Guenther

NetHack A screen oriented fantasy game where your goal is to grab as much treasure as you can, retrieve the Amulet of Yendor, and escape the Mazes of Menace alive. On the screen is a map of where you have been and what you have seen on the current dungeon level. As you explore more of the level, it appears on the screen in front of you. NetHack generates a new dungeon every time it is played, thus even veteran players will continue to find it entertaining and exciting. This is part 3 of a 3 part distribution. Part 1 contains the binary portion of the distribution and can be found on disk 822. Part 2 contains part of the source and can be found on disk 823. Part 3 contains the remainder of the source. This is version 3.1p10, an update to version 3.0p10 on disk 460. Includes source. Author: Various; see documentation

Pager A program to number lines and pages for various kinds of text. It uses printf style formatings and has a lot of cli options, including lines per page, multiple sources, quiet option etc. Requires AmigaDOS 2.04 or higher. This is version 1.00, free-ware, binary only. Author: Hans-Peter Guenther

Fred Fish Disk 825

All The Archiving Intuition Interface makes things easier if you are archiving or dearchiving files. You can do it all with the click of a mouse button, instead of typing in a whole line in the CLI. Version 1.35, an update to version 1.03 on disk 799. Now supports KickStart 2.xx as well as 1.3. Supports several archiving formats including LHA, Zoo, Arc, UnArj, and UnZip. Requires regtools library. Shareware, binary only. Author: Paul McLachlan

ASokoban An implementation of the UNIX game Sokoban for the Amiga. Has the original 85 levels of the UNIX game, a nice Intuition GUI, undo and backup functions, and is fully multitasking. Requires Kickstart 2.0. Version 1.1, binary only. Author: Panagiotis Christias

VirusChecker A virus checker that can check memory, disk bootblocks, and can look for signs of most known viruses. Can remember nonstandard bootblocks that you indicate are OK and not bother you about them again. Includes an ARexx port. Version 5.22, an update to version 5.06 on disk 660. Binary only. Author: John Veldthuis

WComm A commodity which enables the user to manipulate windows with 43 user definable hotkey commands. You can move, size, re-size, set to prefs, zoom, exclude, include, close tile cascading, and kill windows. You can cycle screens. WComm also has a title clock, a palette window (with up to 256 colours), a popup shell, and a notify system, which can inform you about any important event and date, such as the birthdays of your friends, etc. You may also automatically start any command, a backup for example, at specific intervals. WComm is controlled by some configuration files and can be handled by the use of the several asynchronous windows. Requires AmigaDOS 2.04 or higher. This is version 1.80, freeware, binary only. Author: Hans-Peter Guenther

Fred Fish Disk 826

Asteroids A very nicely done asteroids game. All images and sounds are loaded from disk as IFF files, and can be replaced by the user if desired. This demo version has been partially disabled to keep the player from going past level 5. Version 0.85, share-ware, binary only. Author: Mike Seifert

Date2Day A simple program that gives the day name for the date selected by three gadgets. Uses GadTools library, so requires AmigaDOS 2.04 or higher. Version 0.1, binary only. Author: Gérard Cornu

DMEFReq A tool to replace the arp filerequester calls of dme or other editors with the ast one. It saves the selections to some env variables which can be easily examined from rex or batch scripts. Includes examples of how to use it in DME. Requires AmigaDOS 2.04 or higher. Version 1.00, freeware, binary only. Author: Hans-Peter Guenther

MemSnap A small memory monitor useful for seeing how much memory other programs take up. Based on a program called Memeter, which broke under Kickstart 2.0. Requires Kickstart 2.0 or higher. Version 1.1, an update to version 1.0 on disk 696. Includes source. Author: Martin W. Scott

SoftLock A program to help prevent unauthorized access of your bootable hard drive by requiring a password each time you reboot. Has been tested under both AmigaDOS 1.3 and 2.0. This is version 1.0.2, an update to version 1.0.1 on disk 633. Shareware, binary only. Author: Allan Baer

Fred Fish Disk 827

AMaster An address database program with sort, search and selections after each field. The number of entries depends only on the free memory. Has a lot of print options including a print to screen function. Has a full online help system. Includes both German and English versions. Is font independent and has been tested under 2.04 and 3.0. Requires AmigaDOS 2.04 or higher. This is version 1.52, freeware, binary only. Author: Hans-Peter Guenther

AskReq This is another batchfile requester. It displays a message and prompts the user for a string or optionally for a number. It may be also used to request a choice between the specified gadgets. Has a lot of CLI options. Requires AmigaDOS 2.04 or higher. This is version 1.00, freeware, binary only. Author: Hans-Peter Guenther

AskVersion This little program can be used to check whether you are running under AmigaDOS 1.3 or AmigaDOS 2.04. You can put it into your startup sequence to execute a 1.3 bootup script. This is version 0.01, public domain, includes source. Author: Hans-Peter Guenther

AztecErr A Manx quickfix support program. If you use the quickfix option of AztecC version 5.xx, you can set COEDIT to this program. It opens a window which displays all errors one after another. It also has an ARexx port and a gadttools user interface. This is version 1.25, an update to version 1.0 on disk 761. Removed some enforcer hits and is now font independent. Requires AmigaDOS 2.04 or higher. Freeware, binary only. Author: Hans-Peter Guenther

CloseWD A tool which enables you to kill windows which are left on any screen from other programs, which have been terminated by gurus or other things. You can specify the window by pattern matching in the string gadget or by setting a timeout that gives you time to select the proper window. It has a gadttools interface and an "ask-before-closing" option. This is version 2.11, an update to version 1.2 on disk 742. Removed some enforcer hits and is now font independent. Requires AmigaDOS 2.04 or higher. Freeware, binary only. Author: Hans-Peter Guenther

FRequest FRequest is a handy program which lets you select a file by using the ASL file requester and executes a CLI command with the given selection. FRequest can be easily used in batch files and has a lot of options. You can use it as an frontend for any program which does not directly support filerequester selections. It exchanges [F] in the specified command line with the selection. It has a debug ability for testing of options before execution. This is version 1.55, an update to version 1.5 on disk 743. It now supports multiple file selections and the save filerequester option. Requires AmigaDOS 2.04 or higher. Freeware, binary only. Author: Hans-Peter Guenther

PickFile A random generated executor. It uses a file, or optionally a directory, to start the given commandline which the selection. Can be easily used for slideshows, wpattern, font, wpicture changes. Any [F]'s will be exchanged with the selection. Includes examples. Requires AmigaDOS 2.04 or higher. This is version 1.00, freeware, binary only. Author: Hans-Peter Guenther

Fred Fish Disk 828

DiskTest A utility to test the integrity of floppy and hard disks, ala Norton Utilities. This is version 2.03, an update to version 1.18 on disk 663. New features include a completely revised GUI, implemented with a text scroller. Requires AmigaDOS 2.04 or later. Public domain, includes source. Author: Maurizio Loreti

Post An excellent PostScript interpreter for the Amiga which implements the full Adobe language. Supports type 1 and type 3 fonts, screen output, file output, and printer output. This is version 1.86enh, an update to version 1.7 on disk 669. In this enhanced version all AmigaDOS 1.3 compatibility has been removed to facilitate a better, more consistent user interface using GadTools menus and GadTools gadgets, full

support for and use of ASL file requesters has been added, many bugs have been fixed, and the source has been upgraded to work with SAS C 6.x. Requires AmigaDOS 2.04 or later. Includes source. Author: Adrian Aylward, enhancements by Robert Poole

PSFonts Postscript font files from the GNU Ghostscript 2.5.2 distribution, for use with the "Post" postscript interpreter on disk 828. This is part one of a three part distribution. Parts two and three can be found on disks 829 and 830 respectively. Author: Various, see docs.

Fred Fish Disk 829

PSFonts Postscript font files from the GNU Ghostscript 2.5.2 distribution, for use with the "Post" postscript interpreter on disk 828. This is part two of a three part distribution. Parts one and three can be found on disks 828 and 830 respectively. Author: Various, see docs.

Fred Fish Disk 830

PSFonts Postscript font files from the GNU Ghostscript 2.5.2 distribution, for use with the "Post" postscript interpreter on disk 828. This is part three of a three part distribution. Parts one and two can be found on disks 828 and 829 respectively. Author: Various, see docs.

Fred Fish Disk 831

GrabKick A tool to copy the contents of any Kickstart ROM into a file. Note that there are many legitimate reasons for wishing to make a file copy of a ROM image. I don't condone using this program for any illegal uses however. You should be aware of the laws in your region with regard to fair use of software, including software contained in ROMs. Version 1.1, includes source. Author: Ralf Gruener

Term

A gift-ware telecommunications program written for AmigaOS 2.0 or higher. Features include total configurability, full ARexx control, Xpr-transfer support, filetype-identification after download, cut & paste/point-and-click on screen, auto upload and download, unlimited size scrollable review buffer, solid and fully-featured VT102/VT220/ANSI emulation, support for external terminal emulation libraries, optional fast atomic terminal emulation, hotkey support, powerful phonebook and dialing functions, ability to save and print the contents of the screen as IFF-ILBM or ASCII file, full overscan and screen resolution support (AGA and ECS screen modes included), asynchronous operation and a lot more. This is version 3.1, an up-date to version 2.3 on disks 725 and 730. This is part one of a three part distribution, and contains the main program, documentation, and auxiliary data files. Author: Olaf 'Olsein' Barthel

Fred Fish Disk 832

FakeKey A utility for use in scripts with programs like Diskcopy that require the user to press a key before the program runs. It sends a user-specified key press to the active window, after an optional delay. Requires AmigaDOS 2.04 or higher. This is version 1.0. Includes source in assembly. Author: Douglas Nelson

NameThatMonster A commodity for use with Moria and similar games that use the slash key for identification. It allows you to identify a monster or object with a single press of the middle mouse button. Requires 2.04 or higher and a three button mouse. Includes source in F-Basic. Author: Douglas Nelson

Term

A gift-ware telecommunications program written for AmigaOS 2.0 or higher. Features include total configurability, full ARexx control, Xpr-transfer support, filetype-identification after download, cut & paste/point-and-click on screen, auto upload and download, unlimited size scrollable review buffer, solid and fully-featured VT102/VT220/ANSI emulation, support for external terminal emulation libraries, optional fast atomic terminal emulation, hotkey support, powerful phonebook and dialing functions, ability to save and print the contents of the screen as IFF-ILBM or ASCII file, full overscan and screen resolution support (AGA and ECS screen modes included), asynchronous operation and a lot more. This is version 3.1, an up-date to version 2.3 on disks 725 and 730. This is part two of a three part distribution, and contains the main program as a 68020/030/040 executable, and the program source code. Author: Olaf 'Olsein' Barthel

Fred Fish Disk 833

Term A gift-ware telecommunications program written for AmigaOS 2.0 or higher. Features include total configurability, full ARexx control, Xpr-transfer support, filetype-identification after download, cut & paste/point-and-click on screen, auto upload and download, unlimited size scrollable review buffer, solid and fully-featured VT102/VT220/ANSI emulation, support for external terminal emulation libraries, optional fast atomic terminal emulation, hotkey support, powerful phonebook and dialing functions, ability to save and print the contents of the screen as IFF-ILBM or ASCII file, full overscan and screen resolution support (AGA and ECS screen modes included), asyn-

chronous operation and a lot more. This is version 3.1, an up-date to version 2.3 on disks 725 and 730. This is part three of a three part distribution, and contains the documentation in DVI and PostScript formats. Author: Olaf 'Olsein' Barthel

ZIP

A program which can interpret and run standard series and interactive fiction plus Infocom game files. Includes sound and proportional font support and other Amiga specific features. Version 1.00, Amiga release 2.2, includes source in 'C'. Author: Mark Howell, Amiga port by Olaf Barthel

Fred Fish Disk 834

InfoTools Several tools to query information about or to disassemble Infocom game files. Source in 'C' is included. Author: Mark Howell, Amiga port by Olaf Barthel

Pinfocom

A portable Infocom standard series game file interpreter that can also analyze any Infocom game file and display vocabulary lists, object trees, etc. Has many informative and debugging options that can be enabled at runtime. Includes extensive documentation, sound and proportional sound support, and many Amiga specific features. This is version 3.00, Amiga release 2.34. Includes source in C. Authors: InfoTaskForce & Paul D. Smith; port by Olaf Barthel

WBGenie WBGenie is a WB-program launcher with a difference. It is intended to be a WB interface to a set of WB programs (which the author is in the process of writing) to make performing housekeeping chores on the Amiga simple. WBGenie is a WB2.x only program and is a commodity. It makes use of appicons and appwindows. Includes some sample code to demonstrate how to write a tool type array without affecting existing tool types. Version 1.02, binary only. Author: Steven Velletri

XEM

Sample code and documentation how to create and interface to external terminal emulation libraries as supported by terminal programs such as LR-Comm, term' and X-Comm. This is version 2.0 and includes sample library and sample interface source code in 'C' and assembly language. Author: Ueli Kaufmann

Fred Fish Disk 835

MandelSquare Yet another program to generate images from the Mandelbrot set, different from most implementations in that it runs only under AmigaOS 2.x, requires an 030/040 CPU and a numerical coprocessor. The calculation routines were written in '86 assembly language for maximum speed and precision. Also included is a 'movie mode' which allows generation of long camera zooms to spots in the Mandelbrot set. The resulting animations can be saved in ANIM-opt-5 format, allowing to replay them using 'MandelSquare' or standard animation software. Enhancements include support for the AGA chipset (now you can finally create images in 256 colours) and several bug fixes and improvements in the image and animation creation code. This is version 1.6, an update to version 1.3 on disk 589. Includes source in C and assembly language. Author: Olaf 'Olsein' Barthel

Mine A new Modula-2 implementation of an old computer game. You have an N * N square with mines hidden in some fields. Your job is to mark them with a flag as fast as possible. High-score lists are supported. This is version 1.8, an update to version 1.6 on disk 758, and contains a few improvements and some bug fixes. Requires AmigaDOS 2.0, includes source. Author: Thomas Ansong

Mines

A game in which you have to logically find out which parts of the mine-field are not mined. There are many kinds of mine-fields and you have to be very careful to be able to solve the most difficult levels. Mines opens its own window on a Work-bench screen and it's multitasking friendly. This game was made and tested under Workbench 2.0, so the colors may look a bit strange under WB1.3. Version 2.0, binary only. Author: Teemu Sipilä and Marko Malmberg

SuperDark A screen blanker with some special features. It is similar to the AfterDark screen blanker in the PC and Mac worlds. Features include a lot of different screen effects, a screen locker, and more. Version 1.2, includes source. Author: Thomas Landsprung

SuperFormatter A easy to use disk formatting program with an Intuition interface. Options include quick format, verify, trashcan icon installation, FFS versus old filesystem, and more. Version 1.0d, binary only. Author: Mark Warpool

Fred Fish Disk 836

DocPrint This program is a papersaver for those who use fanfold paper in their printers. It is able to print the odd and the even pages separately with page numbers and header and footer. Can be called from Workbench or via CLI with textname as argument for use with DirOpus or

- SID. Can print powerpacked files. All settings can be stored in a config file. Comes in two versions, English and German. Needs AmigaDOS 1.3 or higher, powerpacker.library (included) and PAL-mode. This is version 2.00, shareware, binary only. Written in Modula2. Author: Hartmut Jäger (Bäri-Soft)
- FSim** A process simulation system for the Amiga. It calculates complex systems consisting of algebraic and differential equations and shows the results in a graphic representation. A user with only a small knowledge of C programming is able to use FSim to create complex models and connect them to a comfortable user interface. Version 1.0, binary only. Author: Jens Hartkopf
- Slicer** A program for creating abstract art based on mathematical functions, such as the Mandelbrot set, Julia sets, and related abstractions (chaotic dynamical systems). Features include fast fixed or floating point arithmetic, many different functions, many coloring and rendering options, batch mode, multi-pass mode, and four dimensional navigation. The pictures it makes can be thought of as cross sections or "slices" revealing the insides of solid objects. This is version 2.1, an update to version 2.0 on disk 634. Binary only. Author: Gary Teachout
- Fred Fish Disk 837**
AquaPack This package is a replacement of the old Aquarium program. NewFish, NewAqua and C/Aqua support a packed database but are also compatible with the old (unpacked) database. The entire package supports a user configurable database path. C/Aqua has the same functions as NewAqua, but is controlled via CLI. It has an interface to install on a BBS. AquaPack is written in SAS-C. NewFish is version 2.71, NewAqua is version 1.01, and C/Aqua is version 1.01. Source is available from the author. Author: Silvano Oesch, Paul Wittwer
- Life** Another version of Tomas's Life game. Features include wrap-ping the screen as in a torus, independent setting of the horizontal and vertical resolutions, computing only a specific number of generations, redisplay only every N generations, a macro language to set up initial generations, and more. Works with horizontal resolutions up to 262,112 pixels and vertical resolutions up to 65,535 pixels. This is version 6.1, an update to version 5.0 on disk 316. Includes source. Author: Tomas Rokicki
- UnixDirS** A program which intercepts calls to dos.library to add the UNIX style "." and ".." syntax for current and parent directories, respectively, to file and path names. I.E., you can refer to files in the current directory as './foo' and files in the parent directory as '../foo', or any combination of the two. Similar to program on disk 321, but independently developed. Includes source. Author: Martin Scott
- Fred Fish Disk 838**
ABackup A powerful backup utility, that may be used both for hard disk backup and for file archiving. Features include a full interactive interface, a "batch" mode, save/load file selection, support for HD floppies, support for XPK library, a child task for disk write, error recovery when writing to a disk, cyclic backup to and restore from several drives, optional data compression, function to rebuild the catalog, support for both soft and hard links, and more. Includes French and English versions. Version 2.40, an update to version 2.00 on disk 789. Shareware, binary only. Author: Denis Gouinelle
- GZip** GNU zip is a compression utility designed to be a replacement for 'compress'. Its main advantages over compress are much better compression and freedom from patented algorithms. GZip currently defaults to using the LZ77 algorithm used in zip 1.9 but can also decompress files created by zip, compress, or pack. Version 1.0.5, includes source. Author: Jean-loup Gailly
- LE-NAG** LeverEdge NAG is a program to remind you of events before you miss them. Events can be scheduled to occur once or repeat daily, weekly, monthly or yearly. You can be alerted of the event in a number of ways from a screen flash to a message requester. Version 93.03.03, an update to version 92.10.21 on disk 761. Shareware, binary only. Author: Craig M. Lever
- Fred Fish Disk 839**
Japanese Two programs to help teach Japanese. "Word A Day" is a pop-up program to put in your WBSStartup drawer. It will randomly select one word out of its 1019 word database and display it along with the English. "JapaneseVocabulary" is a quiz type Japanese vocabulary builder. Both programs are standalone and complete, and also work with the "Japanese Talking Picture Dictionary" by the same author. Author: Wayne Quigley Sr
- LazyBench** LazyBench is a utility for lazy people with a hard disk crammed full of goodies which are difficult to reach because they are buried away in drawers inside drawers inside drawers inside drawers... Supports tools and projects and both OS 1.3 and OS 2.x versions are supplied with this distribution. LazyBench for the OS 1.3 opens a little window on the Workbench screen and delivers a fully configurable menu which brings up to 30 applications at your fingertips. LazyBench for the OS 2.x adds an item under the Workbench "Tools" menu, installs itself as a Commodore and waits in the background. Use its hot key combination to pop its window and then select an application from a list of up to 100 applications. Binary only. Author: Werther "Mirco" Pirani
- SSW** Solar System Wars is a game similar to Space Wars, pitting two players against each other, in orbit around 0 to 3 stars. You can choose from 48 different solar systems, or use the random system selector for the different challenges every round. A variety of weapons are available. Supports two button joysticks but does not require them. Version 1.14, binary only. Author: James Cleverdon
- TrashIcon** A WorkBench 2.x application icon to delete files. Puts an icon at a possibly user defined position on the WorkBench screen, that deletes all files that are dragged onto it. This is version 1.2, binary only. Author: Mark McPherson
- Fred Fish Disk 840**
OctaMED A music editor which was originally designed for making music for programs (demos, games, etc), but works well as a stand-alone music program as well. OctaMED is the 8-channel version of MED. This is a freely distributable release of the fully functional commercial version 2.0. Versions later than 2.0 remain commercial and are "not" freely redistributable at this time. Previous releases were version 1.00b on disk 579 and a demo of version 4.0 on disk 755. Binary only. Author: Teijo Kinnunen and Ray Burt-Frost
- Fred Fish Disk 841**
AniMan AniMan combines Amiga animation, speech synthesis, and voice recognition, to provide you with an animated talking head that will run any Amiga program by voice command. Ask for an Amiga program by name, and AniMan will oblige. If AniMan becomes impatient, you may be insulted. AniMan will also recite poetry if you ask nicely. It is designed to work with the Perfect Sound 3, Audio Master (Audio Magic), or generic audio digitizers. Also requires 1MB of fast memory. This is Version 5.0 of AniMan, an update to version 3.2 disk 723. New features include support for AGA and improved performance. Binary only. Author: Richard Home
- GifInfo** A small program that gives information about GIF files, such as size, number of colors, etc. Includes documentation in English and French. Version 1.12, binary only. Author: Christophe Passuello
- PowerData** Patches AmigaDOS, enabling all programs to read and write files packed with PowerPacker in ways that is completely transparent to themselves and the system. Programs will read powerpacked datafiles directly, and will also magically start compressing their own datafiles, as they create or update them. This is version 38.115, an update to version 38.105 on disk 801. Partially localized for use with Workbench 2.1. Workbench 2.04+ only. Shareware, binary only. Author: Michael Berg
- Fred Fish Disk 842**
AntiCircleVir A link virus detector that detects 30 different such viruses. Checks your disk and memory for known link viruses, and can also detect known bootblock viruses in memory. Version 1.8, an update to version 1.7 on disk 815. Shareware, binary only. Author: Matthias Gutt
- GadToolsBox** A program that lets you draw/edit GadTools gadgets and menus and then generates the corresponding C or assembly code for you. This is version 2.0, an update to version 1.4 on disk 731. Includes source. Author: Jan van den Baard
- Fred Fish Disk 843**
BrowserII A "Programmer's Workbench". Allows you to easily and conveniently move, copy, rename, and delete files & directories using the mouse. Also provides a method to execute either Workbench or CLI programs by double-clicking them or by selecting them from a ParM lib Menu with lots of arguments. Uses whatIs.library to detect file types and executes commands based on these. Version 2.13 for AmigaDOS 1.3 and 2.31 for AmigaDOS 2.0 (localized). Update to version 2.04 on disk 649. Binary only. Author: Sylvain Rougier and Pierre Carrette
- MeMeter** A WB 2.0 only version of MeMeter (only 2000 bytes). Update for original MeMeter, which didn't work under 2.0. Includes source in C. Author: Pierre Carrette
- ParM** Parametrable Menu. ParM allows you to build menus to run any program in either in WorkBench or CLI mode. This is an alternative to MyMenu which can run only when WorkBench is loaded. ParM can have its own little window, can attach menus to the CLI window you are running it from, or to the WB menus, just like MyMenu. Versions 3.6 & 4.3, an update to version 3.6 on disk 649. Binary only. Author: Sylvain Rougier and Pierre Carrette
- WBRun** A RunBach style program which uses parM.library. Runs programs in WorkBench mode from any CLI. Programs are fully detached. The program you run must support WorkBench startup. Includes source in C. Versions 1.3 and 2.0. Author: Sylvain Rougier and Pierre Carrette
- WhatIs** WhatIs.library can detect file types and is fully parametrable by an ascii file. You can describe file types and they will be recognized by the library. A few tools are also included. Author: Sylvain Rougier and Pierre Carrette
- Fred Fish Disk 844**
DBB Digital Breadboard is a full GUI digital logic circuit simulator. Digital Breadboard currently supports 2 and 3 input AND, OR, NAND, and NOR gates, NOT and XOR gates, D, JK, and SR edge-triggered flip-flops, multiple independent clocks, switched and pulsed inputs, outputs, Vcc, GND, independent 4 channel oscilloscope, event counters, variable speed timer, preferences printing, and more. Requires AmigaDOS 2.x. This is version 1.1, freeware, binary only. Author: Dan Griffin
- DiskPrint** A label database which prints and stores disk labels for 3.5" and 5.25" disks. Primarily created as a combined database and print utility for FD disks, it includes easy-to-use label library functions (like printing labels for a whole FD series in one turn or multiple print of one label) and labels for most FD disks which are available within a few mouse clicks. Features include a fast search routine, user-definable label layout, different label sizes, intuition-based disk directory read-in and a lot more. Very configurable. Works fine with every printer connected to the parallel port and AmigaOS 1.2, 1.3, and 2.x. This version now includes DESKJET support for single label sheets. Includes both English (PAL & NTSC) and German versions. This is version 3.59, an update to version 3.51 on disk 685. Shareware, binary only. Author: Jan Geissler
- Fred Fish Disk 845**
ISL Imagine Staging Language, a decompiler and compiler which allow the user to create and modify imagine staging files in a manner much more powerful than that provided by Imagine itself. Imagine is the 3d rendering and animation program published by Impulse. ISL does not require any particular version of AmigaDOS, but it only works with version 2.0 of Imagine. Version 1.4, binary only. Author: John T. Grieggs
- Sz'kwa** Sz'kwa, a children's game from Northern China, as described by Clifford A. Pickover in his book MAZES for the MIND, computers and the unexpected. Requires Workbench 2.04 or higher. This is version 1.1, binary only. Author: A.R. Mohowitsh
- TextPlus** A TeX frontend word processor that provides facilities for tables, lists, mailmerge, footnotes, inclusion of IFF graphics, and ARexx-Port (111 commands) and full OS2.0/3.0 compatibility. Makes use of PasTeX. Georg Hessmann's Amiga implementation of TeX. New features are support for LaTeX, Make-Index (automatic index generation) and printing via PRT. (TeX is not needed for the latter). This is the German version 4.10, an update to version 4.00 on disk 700. Disk 846 contains the English version. Shareware, binary only. Author: Martin Steppeler
- Fred Fish Disk 846**
FileCache This package is for compiler and assembler facilities. It implements a cache for include files with a file cache server. Can greatly speed up compilation and assembling. Binary only. Author: Christophe Passuello
- IOject** A linker library that emulates some gadgets of the gadtools library (CheckBox, Cycle, Button, Scroller, Integer, String) and an area of text with scrolling. Works with all versions of WorkBench. Includes examples and documentation in English and French. Binary only. Author: Christophe Passuello
- TextPlus** A TeX frontend word processor that provides facilities for tables, lists, mailmerge, footnotes, inclusion of IFF graphics, and ARexx-Port (111 commands) and full OS2.0/3.0 compatibility. Makes use of PasTeX. Georg Hessmann's Amiga implementation of TeX. New features are support for LaTeX, Make-Index (automatic index generation) and printing via PRT. (TeX is not needed for the latter). This is the English version 4.10, an update to version 4.00 on disk 700. Disk 845 contains the German version. Shareware, binary only. Author: Martin Steppeler
- Fred Fish Disk 847**
ADM A comfortable and flexible address database with font sensitive windows, commodity support, application window support, an ARexx-port, public screen support, and fully controllable from the keyboard. It includes user flags (grouping), email support, and freely configurable label printing. It can fill out letter forms and call your word processor, print remittance orders, dial the modem, and has online help. Requires AmigaDOS version 2.04 or later. Version 1.01, German version only. Shareware, binary only. Author: Jan Geissler
- MidChords** A program which replaces and extends the chord-key-play-function, as may be found on several low priced keyboards. To make full use of this code a MIDI interface is required, however, a limited audio output is available too. Some special harmonic routines are: Chord Finding, Sequencing and Random Play. Chords and sequences are played by simple mouse clicks and recorded Sequences can be saved (and loaded). On-line information may be switched on/off. Version 3.2, binary only. Author: Theo Brugman
- Fred Fish Disk 848**
Amiga_E An Amiga specific E compiler. E is a powerful and flexible procedural programming language and Amiga E a very fast compiler for it, with features such as compilation speed of 20000 lines/minute on a 7 Mhz amiga, inline assembler and linker integrated into compiler, large set of integrated functions, module concept with 2.04 includes as modules, flexible type-system, quoted expressions, immediate and typed lists, low level polymorphism, exception handling and much, much more. Written in Assembly and E. Version 2.1b, an update to version 2.1 on disk 810. Public domain. Includes partial sources. Author: Wouter van Oortmerssen
- CWeb** A programming tool that allows you to program top down, by splitting your program into many small, and understandable modules which 'tangle' tangles into a compiler understandable file. By applying 'cweave' to the program you can produce a pretty-printed listing for processing with 'TeX'. This is version 2.7, an update to version 2.0 on disk 551, now with full ANSI and C++ support. Includes source. Author: Donald Knuth, Silvio Levy, port by Andreas Scherer
- Poker** A "fair" version of a casino video poker machine in which a deck is dealt randomly. Regular casino rules apply. This is a variation of the version that appeared in the October 1992 of JUMPDISK, the Original Disk Magazine for the Amiga. Author: Richard Ramella
- Fred Fish Disk 849**
AmigaPascal This is a mini PASCAL compiler, which may be used for smaller projects. It is not yet quite complete and can only be run from the CLI. Works on all Amigas, and OS versions from 1.2 to 3.1. Version 1.0, freeware, binary only. Author: Daniel Amor
- BackGammon** The computer version of the game. This is a tiny little game which runs on Workbench. Works on all Amigas, and OS versions from 1.2 to 3.1. Version 0.9, freeware, binary only. Author: Igor Druzovic and Daniel Amor
- CDTV-Player** A utility for all those people, who'd like to play Audio CD's while multitasking on WorkBench. It's an emulation of CDTV's remote control, but is a little more sophisticated. Allows access to the archive even without a CDROM drive (i.e. Amiga 500-4000), although you can't play a CD. Program and KARAOKE (live on-screen) included. Recognizes CDs automatically. Version 1.8, an update to version 1.5 on disk 805. Freeware, binary only. Author: Daniel Amor
- MathPlot** A function plotter with linlog plot, a complete KS 2.0 inter-face, and ARexx support. Needs Kickstart/WorkBench 2.0 and mtool library (included). Version 2.01, an update to version 1.04 on disk 573. Shareware, source available from author. Author: Ruediger Dreier
- RRT** Demo of a real time mapping of a reflection of a graphic onto a sphere. Is system friendly, multitasks, and uses an intuition screen. Written in C with mail assembler assist. Includes source. Author: Adisak Pochanayon
- Fred Fish Disk 850**
4-Get-It A fully playable version of an arcade quality puzzle game with 10 levels. The full puzzle has almost 300 levels and 700K+ additional graphics. Impressive sound and graphics. Requires 1 MB. Binary only. Author: Adisak Pochanayon
- FastGIF** A very fast GIF viewer with a graphical user interface, file requester, support for AGA chips set, support for viewing in a WorkBench window, IFF saving (registered version only), and GIF89a compatibility. Includes English and French versions. Version II (1.01), an update to version 1.00 on disk 690. Shareware, binary only. Author: Christophe Passuello
- MineField** Another MineField program. This one has nice graphics, sound, adjustable parameters, and a 3D look interface. Author: Adisak Pochanayon
- To Be Continued.....
- In Conclusion**
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And furthermore...



Like his more sedentary fellow performer, Pablo, Stanley is an electronic marvel with articulated lips and eyes. Stanley can travel on his roller blades in twists and turns which, while not exactly Olympic status, are still attention stealing. Originally Stanley was created using ice skates and a hockey stick. The small skater gained stability by leaning on his hockey stick. When Stanley's mentor, Pat Starace, discovered one day that the stick had been broken, they both decided it was time for Stanley to learn to skate on his own. Quickly the small entertainer learned the tricky balance required and now has his hands free to do other things such as meet small children and help hawk Public Domain disks for the Queens Commodore User Group at Amiga events.

"I could not have done this on a Mac or an IBM."
Pat Starace, Starace Models and Effects Inc.

At the World of Commodore in New York, a striking performer traveled through the crowds and received attention wherever he went. His small stature and smooth, gliding style brought smiles and even astonishment to his audience. Although never asked for an autograph, the young performer was always willing to please, proving that Stanley Puck® is always a true professional and ready to perform at a moment's notice. Nothing can stop him—except a need for a recharge of his batteries.

Pablo has a more stationary existence. He appears to be a cross between an orange, a pineapple, and a bunch of bananas. He spends his time hanging from a tree and has been known to sing, talk, and consistently keep audiences interested.

Pat Starace is credited with bringing both Stanley and Pablo to media attention. Pat is a model builder with only a small knowledge of electronics. He had crystals and relays made for the two thespians through trial and error. At one point he brought the transmitter to a specialist to improve Stanley's range. The technician took one look at the complex design and the components and asked Pat how he had accomplished it. The technician did not believe it was possible.

While the movable portions of both Pablo and Stanley are provided by battery powered motors, their singing and articulation abilities come from the programming skill of Pat on the Amiga.

"I could not have done this on a Mac or an IBM," stated the serious young agent. "I used Dr. T's MIDI Recording Studio and a sequencer. I program their movements directly from the sequencer's keyboard in time with the recorded

music." The completed arrangement is then recorded to tape and played back through Stanley or Pablo.

Stanley is controlled internally by only two tracks. One is used for the voice and music and the other creates Stanley's eye and mouth movements. Stanley travels across the floor under the watchful eyes of his friend and agent Pat who handles Stanley's difficult maneuvers with a radio control device similar to the units used to control power boats, cars, or model planes.

Pablo is slightly more sophisticated. His articulation comes from a multi-track tape recorded from the sequencer. This not only controls his eyes and mouth but also the lips of his backup oranges. Unlike Stanley, Pablo uses four tracks. One or two tracks can be audio, while two or three tracks can be used to handle the complex articulation of Pablo's face and the synchronization of the two oranges.

Both Pablo and Stanley have felt the warmth of the crowds. Stanley has been seen gliding across the ice in half-time shows during the New York Islanders NHL games. There has even been a growing request for their attendance at a variety of parties and fund raising events. But, according to Pat, their greatest enjoyment comes from entertaining children at local hospitals. Their work with children has earned them letters of commendation from local officials.

Like all young performers, Stanley runs the risk of being type-cast. However, Pat assures us that Stanley is not restricted to being a puck. He has the ability to transform into a variety of disguises and personas. From a soda can to a large computer chip, Stanley's versatility knows few boundaries.

Stanley has not left the business portion of their enterprise strictly to Pat. Recently, Stanley needed a special part in order to perform at a charity event. When Pat was unable to convince the supplier to produce the part in time, Stanley wrote the supplier a letter explaining the situation. Stanley got results and the part was received in time for the event.

Acceptance has not always been easy for this troop. In the early days, Pat and Stanley had to sneak onto a skating rink late at night to practice. Several times they were discovered and forced to leave. Now, whenever Stanley requires a little ice time, they call the rink and a section is roped off and reserved for them. Such is the power of fame, but both Stanley and Pablo have vowed not to let it go to their heads.

Pat Starace
Starace Models and Effects Inc.
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Pablo (above) and Stanley (left) perform for all audiences, but they tend to enjoy children the best.

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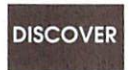
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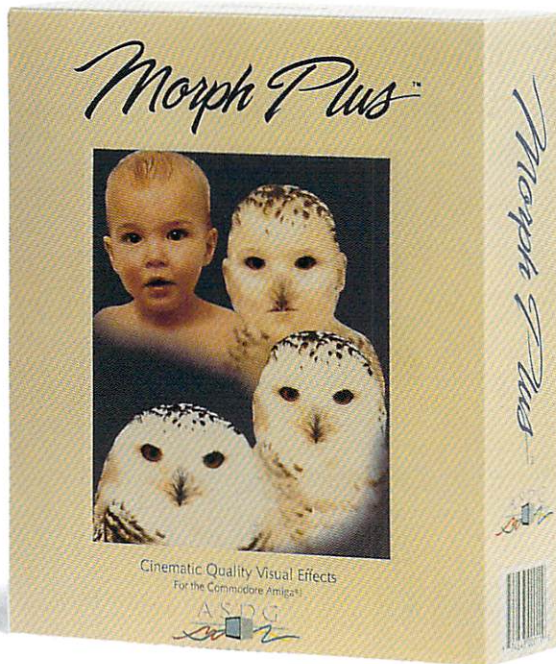
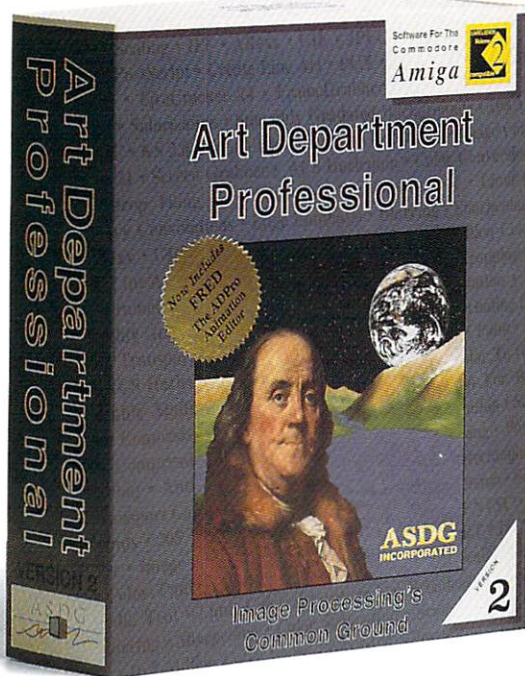
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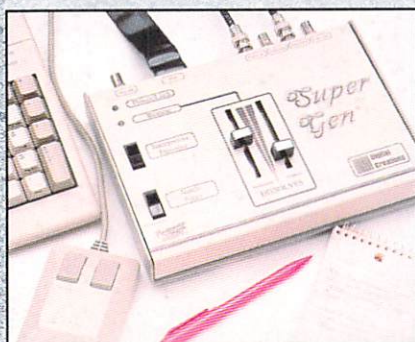
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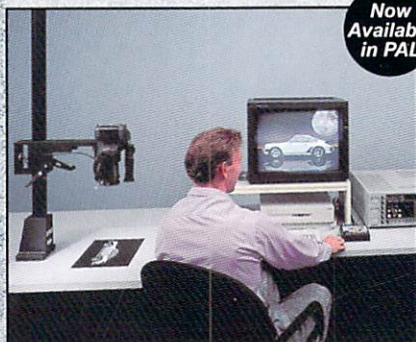
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